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THE TESTIMONY OF NATURAL THEOLOGY TO CHRISTIANITY.

BY THOMAS GISBORNE, M. A.

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heathen to the reception of revealed truth, must take his stand on the ground, and gain access through the portal, of Natural Theology. On this ground did Saint Paul take his stand, through this portal did he seek access, in his application to the understandings and the hearts of the people of Lycaonia, and even of the polished Athenians. Why, as the same Apostle affirms to the Romans, were all the Gentiles universally *without excuse* before God? *Because that which may be known of God is manifest in them: for God hath showed it to them. For the invisible things of him,* (His existence and His attributes,) *from the creation of the world are clearly seen, being understood by the things that are made; even His eternal power and Godhead.* The word of God disdains not the attestation of His works. *The heavens declare the mercy of God; and the firmament showeth the workmanship of His hand.* How is the pupil of atheistical philosophy to be addressed but through the channel of Natural Theology? Prove to him, prove to him irresistibly by that evidence to the relevancy of which he assents, observation and natural reason, that there is a God; and you prepare the way for every ac-

companiment and for every consequence of that momentous verity. And is the subject indifferent as to the established believer in revelation? Surrounded as he is at all times by the works of the Most High, partaking at every moment of their benefits; shall not his faith be continually animated, shall not his exertions be invigorated, by the testimony which with one voice those works are incessantly proclaiming from the heaven above and from the earth beneath concerning that Divine Power, in whom he lives and moves and has his being?

These positions will be admitted. But it may be asked; Why, when so much has been written on Natural Theology, and so lately, and so admirably, in a book which is in the possession of every enquirer, is it necessary to resume the discussion? To this fair and natural question an explicit answer is due.

Of the merits of Dr. Paley's treatise, so far as his investigations extend, it might perhaps be difficult to meet with persons who think more highly than myself. The justness and the force of his arguments; the skill with which he selects his facts, the pertinency, the acuteness, and the

discrimination with which he applies them; tl
lucid and emphatical manner in which he cor
municates the impression which he feels and tl
conclusion which he is establishing, commar
the warmest praise. Let it not be supposed th
I would detract a particle of eulogium from the
merits; nor that, in having introduced qualifyir
words as to the extent of his investigations,
would intimate that the propositions which l
advances ought to have been illustrated by a wid
range of instances. Though, from the infinite
varied arrangements of creation, facts and exan
ples and illustrations might of course be mult
plied inexhaustibly; he has produced an abun
ant sufficiency for the purposes which he med
tated. Yet I may be allowed to state, that in h
work there is a very material defect; a defect n
as to that which he has done, but as to that whic
he has not done. His treatise embraces a pa
only of its legitimate subject. It is not co-e
tensive with its title. It leaves out of consider
tion most momentous truths of Natural Theol
gy; truths concerning the Deity and our relatio
to Him, which by observation and natural reas
man is capable of attaining.

The point which Dr. Paley puts forth his strength to evince is, that the incontestable and diversified indications of design in the visible creation, the exquisite and benignant arrangements in every part and class, animate and inanimate, demonstrate the existence and the superintendence of One Supreme, All-Powerful, All-Knowing, and Benevolent Author. The Natural Attributes of the Deity he states to be Omnipotence, Omniscience, Omnipresence, Eternity, Self-existence, Necessary Existence, and Spirituality*. Necessary Existence he explains to mean "demonstrable" Existence; and Spirituality to signify, negatively, the exclusion of some of the known properties of matter, especially of the *vis inertiæ*, solidity, and gravitation; and positively, the possession of perception, thought, will, power, and action, or the power of originating motion. In this enumeration he does not name Wisdom. Probably he included it in the term Omniscience; not, indeed, correctly, as knowledge and wisdom are very distinct ideas. But his reasoning is continually occupied in establish-

* P. 381—385. London edition, 1817.

ing the wisdom of the Deity. Neither is Goodness contained in his catalogue of attributes.—Subsequently, however, he has a chapter on the Divine Goodness; in which he regards the term as synonymous with benevolence, and as signifying a benignant design in the Deity to render all classes of his percipient creatures happy in their respective stations. This design he establishes on two arguments: first, that in a vast plurality of the instances in which contrivance on the part of the Deity is seen, the design of the contrivance is beneficial; and, secondly, that God has superadded pleasure to animal sensations either beyond the amount necessary for any other purpose, or when the purpose, so far as it was necessary, might have been effected by the operation of pain.

Now, although Dr. Paley, in the conclusion of his treatise, justly remarks, that Natural Theology, by inspiring a devout frame of mind, prepares the true theist for receiving any credible communication of divine knowledge: yet it must be observed, that his view of Natural Theology, if my representation of that view be accurate, contains nothing concerning Holiness as an attri-

bute of God; nothing as to the earth being at present, to the lowest known depth beneath its surface, in such a state of ruinous disorder, and exhibiting such concomitant phenomena, that it cannot be supposed to have originally proceeded thus from the forming hand of its Creator; nothing of Man being now in a fallen state through transgression; nothing therefore of his being actually placed partly under penal discipline, partly under hopes and indications and means of mercy. It will be the object of the following pages to prove that, towards the knowledge and confirmation of these and other fundamental truths lying at the root of the gracious plan of salvation through a Redeemer, Natural Theology affords, in addition to its developement of the attributes already enumerated by Dr. Paley, specific and appropriate, and most valuable aid. I conceive that Natural Theology, not only has for its office to promote, by the developement of those attributes, the conversion of an atheist or of a polytheist into a rational theist, and by preparatory influence to dispose him to listen to any credible revelation; but that it is able, and that it is intended, by ulterior and direct facts and ar-

guments within its own province, powerfully to assist the advancement of the deist into a christian.

I mean not then to retrace the ground which has been so ably traversed and made good in the work to which I have referred. My purpose is, to commence from the point at which that work terminates; and to advance, as I may be able, on the additional and extensive range left open to enquiry.

It may be requisite to premise with distinctness the import of the attribute of Holiness, as ascribed to the Deity. I understand by that attribute, the possession in perfection of justice, truth, mercy, purity, and every other moral excellence: the habitual exercise of all and of each of these excellencies in the government of the universe; correspondent and operative approbation of each created being invested with moral agency, who acts in willing accordance with these excellences; and correspondent and operative disapprobation of each, who acts in willing contrariety to any of them.

To the believer in the Gospel I may confidently state in the outset, that, in describing an

enlarged sphere of usefulness as appertaining to Natural Theology, I feel that I am not resting on human imagination, but on the immovable authority of the Scriptures. That from the passages in the sacred writings, which refer to facts within the scope of natural reason as corroborating divine truths, some may be selected, which appear to have in view the power only, or the wisdom, or the prescience, or the simple benevolence of God, I do not deny. But is a doubt entertained whether there are others, which affirm that the holiness of God is unequivocally discoverable by the works of creation? Two examples may suffice to remove it. The first may be found in connection with a passage, which has already been cited generally. When St. Paul asserts to the Romans, that all the Gentiles were *without excuse;* what is the radical position concerning them, with which he opens his argument? *For the wrath of God is revealed from heaven against all ungodliness and unrighteousness of men, who hold the truth in unrighteousness.* How revealed? *Because that which may be known of God is manifest in them; for God hath showed it unto them.* How showed? *For the invisible things of*

Him from the creation of the world are clea
seen, being understood by the things which a
made, even His eternal power and godhead. O
serve the train of reasoning. The wrath of G
against all ungodliness was conspicuously ma
fested to the Gentile world, and in a way whi
left them wholly inexcusable, *because* His wor
of creation, visible to all men, abundantly p
ved him to be a God who abhorred and wou
punish every kind of iniquity, a God of perf
holiness. And the Apostle proceeds to state f
ther, that it was *because*, when they thus kn
God, they glorified Him not as God, he ga
them up to become vain in their imaginations a
darkened in their foolish hearts, to plunge the
selves into the grossest idolatry, and to live in t
most detestable practices. The whole mass
Gentile wickedness he traces to this source;
their refusal to learn the plain lesson of the
vine holiness daily and hourly spread before th
eyes by Natural Theology. Again; when o
of the inspired writers speaks of the Supre
Being as feeding the young ravens which c
upon Him, be it assumed, if the assumption
desired, that the reference is simply to the divi

benevolence. But when our Saviour commands his followers to love their enemies, to bless those who curse them, to do good to those who hate them, *that you may be the children of your Father which is in heaven: for He maketh His sun to rise on the evil and on the good, and sendeth rain on the just and on the unjust;* not on the good only, but on the evil; not on the just only, but on the unjust; He declares that the voice of Natural Theology pronounces the Deity to be a God, not of benevolence only, but of mercy, and of holiness. It is as though he exclaimed: Behold in the diurnal effulgence of light, behold in every shower that descends upon the earth, a proof that God discriminates every human character; that He loves righteousness; that he abhors iniquity; that He is slow to anger and of long-suffering forbearance; that He waits to be gracious; that by prolongation of kindnesses He invites the sinner to repentance. Contemplate the duties which by His visible operations He thus declares to be required by him from yourselves. Contemplate and dread the punishments, which from a Being, thus proved by His visible operations to be observant and abhorrent

who have reared their huts amidst the wreck. He enquires the history of the scene before him. He is informed that the city, once distinguished by splendor, by beauty, by every arrangement and provision for the security, the accommodation, the happiness of its occupiers, was reduced to its existing situation by the deliberate resolve and act of its own lawful sovereign, the very sovereign by whom it had been erected, the emperor of that part of the world. "Was he a ferocious tyrant?"—"No," it is the universal reply. "He was a monarch pre-eminent for consistency, forbearance, and benignity."—"Was his judgment blinded or misled by erroneous intelligence as to the plans and proceedings of his subjects?"—"He knew every thing but too well. He understood with undeviating accuracy: he decided with unimpeachable wisdom."—"The case, then," cries the traveller, "is plain: the conclusion is inevitable. Your forefathers assuredly were ungrateful rebels; and thus plucked down devastation upon their city, themselves, and their posterity.

The actual appearance of the globe on which

we dwell, is in strict analogy with the picture of our hypothetical city.

The earth, whatever may be the configuration, whatever may have been the perturbation or the repose of its deep and hidden recesses, is in its superior strata a mass of ruins. It is not of one land, or of one clime, that the assertion is made; but of all lands, but of all climes, but of the earth universally. Wherever the steep front of mountains discloses their interior construction; wherever native caverns and fissures reveal the disposition of the component materials; wherever the operations of the miner have pierced the successive layers, beneath which coal or metal is deposited: convulsion and disruption and disarrangement are visible. Though the smoothness and uniformity which the hand of cultivation expands over some portions of the globe, and the shaggy mantle of thickets and forests with which nature veils other portions hitherto unreplenished and unsubdued by mankind, combine to obscure the vestiges of the shocks which our planet has experienced; as a fair skin and ornamental attire conceal internal fractures and disorganizations in the human frame: to the eye of the contempla-

tive enquirer exploring the surface of the earth, there is apparent many a scar testifying ancient concussion and collision and laceration; and many a wound yet unhealed, and opening into unknown and unfathomable profundity.

I propose to bring forward, in the first place, such facts as may suffice to establish the preceding representation of the existing state of the globe; and afterwards to notice some conclusions to which they direct us. The facts will be supported by the testimony of writers eminent for scientific research. It is however to be distinctly remembered, that, while I am thus availing myself of the labours of any individual, his theoretical views of geology rest wholly apart from my subject, and are in no respect to be considered as adopted by me. I am concerned only with the facts; and am responsible only for my application of them.

Among geological writers, there are some who have honourably employed themselves in displaying the clear and decided support, which a scientific examination of the structure of the earth renders to the Mosaic history. Another class is distinguished by hostility to Revelation. The

arguments, by which authors of the latter description endeavour to substantiate their anti-Mosaical theories, are commonly of the chronological kind. As the Canon Recupero, according to the representation of Brydone, having discovered in a well near Mount Etna seven successive layers of lava, with beds of vegetable mould interposed between them; and having calculated, from the thickness of the bed of mould accumulated on the lava by which Herculaneum was overwhelmed, that each of those beds must have required for its formation a period of two thousand years; inferred that the eruption by which the lowest of those lavas was ejected must have raged eight thousand years before the epoch assigned by Moses for the creation: so these geologists affirm that the order of certain successively incumbent strata which they have detected, the nature of those strata, and the regularity with which beds of shells and other substances are deposited and arranged in them, demonstrate that less than additional myriads of years must have been insufficient for the production of the phenomena. Now, to persons who may be in danger of being staggered by such confident asser-

tions, it may be useful to recollect, and analog cally to apply, the following circumstances r specting the strata in the Etnæan well. In t first place, there is abundant reason to be co vinced that the state of facts differs radically fro the representation, differs so radically, as whol to destroy the argument founded on the repr sentation; and that the supposed beds of mou are severally not mould requiring twenty ages f the accumulation*, but volcanic ashes capable being deposited to the existing thickness in tl compass of half an hour; nay, that several alte nations of lava and of ashes might be include within a single eruption. In the second plac that the calculations made by Mr. Brydone a extravagantly absurd, and that beds of lava ma speedily be transformed into an expanse of ple ty, are facts proved by the most desirable of a

* Dolomieu specifically affirms that no vegetable mou exists between these beds of lava; and that Recupero p sitively denied having ever expressed a doubt of the tru of the Mosaic chronology of the globe, and declared h extreme surprise at Mr. Brydone's assertions respectir him. Kirwan, Geological Essays, p. 103. 106. Ponce 471, 472.

witnesses against Mr. Brydone, by that gentleman himself. After describing the country near Hybla (Vol. i. p. 172.) as having been overwhelmed by a deluge of lava, and thus reduced from singular luxuriance to perfect barrenness, he adds: "*In a second eruption, by a shower of ashes from the mountain, it soon resumed its antient beauty and fertility.*" It is equally possible that by different fluctuations and vicissitudes of the waters of the deluge, successive strata of various substances might be accumulated within a short period. And if in any of them the regular position of shells and other component bodies might seem to claim ages for the arrangement of that single stratum: let it be considered whether a supposition of the materials being thus equably collected in a short space of time, and even in a period of commotion, would be more strange than to imagine a tract of land, a mile in length and half a mile in breadth to be removed with its trees and buildings, by an earthquake, to the distance of a mile, and there to be deposited with its trees and buildings still erect. But the latter imagination will be verified in a subsequent chapter.

In confirming and illustrating the convulsed

condition of the superior strata of the earth, it may be advisable to commence with authorities respecting the strata in our own island.

Mr. Kirwan, in his Geological essays*, speaks strongly of the disordered condition of the strata in England and in Scotland.

Mr. Parkinson describes the whole of Great Britain as "having since its completion suffered considerable disturbance from some prodigious and mysterious power. By this power all the known strata, to the greatest depths that have been explored, have been more or less broken and displaced; and in some parts have been so lifted, that some of the lowest of them have been raised to the surface: while portions of others, to a very considerable depth and extent, have been entirely carried away†."

Mr. Townsend‡ describes great and continual dislocations in the strata in the country surround-

* P. 289.

† Transactions of the Geological Society, London. Vol. I. p. 326.

‡ The Character of Moses established for veracity as an Historian recording Events from the Creation to the Deluge, p. 198. 419.

ing Bath. Between Lansdown and the Severn the natural dip of all the strata is completely inverted.

In the Somersetshire collieries violent dislocations are frequent. In a colliery near Bradstock, the seam of coal suddenly sinks many hundred feet; and after an interruption of six hundred yards, resumes its former level*.

An extraordinary disarrangement is manifest on the southern coast of the Isle of Wight. In one part, the stratum of chalk and the superincumbent stratum of clay are turned upwards from their regular dip into a position nearly vertical†.

Dislocations equally striking characterise the country around Exeter‡.

Similar dislocations are common in the tin mines of Cornwall§.

The same description is applicable to the collieries in Glamorganshire‖.

"Derbyshire is extremely rent, and the collieries abound in dislocations. The strata in the vicinity of Ecton, Dovedale, Ilam, and Switham-

* P. 208. † P. 191. ‡ P. 238.
§ P. 218. ‖ P. 213.

ley, are in the utmost confusion: and the coal is in some places lifted up, or thrown down, three hundred and sixty feet*."

"Two miles north of Newcastle, one great dyke, or *fault*," (a term denoting the intersection of a bed of coal, by a mass of extraneous matter,) "throws down the coal five hundred and forty feet."—"At the distance of three miles it is out off, and thrown down again two hundred and forty feet†."

"There is no colliery of any considerable extent in the whole island but what exhibits marks of similar disruptions. Yet in all these *faults* the corresponding portions are as regular in the succession of their dislocated strata, as the leaves and cover of a book would be, if they were bisected and placed in different planes‡."

Many of these *faults* "show marks of violence§."

Some attestations as to the condition of the strata in other parts of the globe are now to be subjoined.

The collieries at Valenciennes are mentioned

* P. 209. † P. 212. ‡ P. 214. § P. 216.

by Townsend as exhibiting appearances corresponding with those of the English coal-mines*.

The mountains of Dauria, on the south-east of Siberia, are so dislocated, that miners cannot calculate the position or the direction of a vein; but are constrained to pursue their works at hazard†.

The strata in the mountains of Siberia, above Inderski, are exceedingly confused. Some are horizontal, some oblique, others vertical, all much dislocated, and in many places interrupted by vast caverns‡.

"Among the proofs of dislocation, the Alpine chasms, particularly noticed both by De Luc and by Saussure, must not be overlooked. They are abundant in granitic chains; and at the height of three thousand five hundred feet above the level of the sea, the latter met with one a hundred feet wide, and so deep that he saw no bottom. All travellers on the Alps have regarded them with horror. They mark convulsion, and show no signs of having been occasioned by attrition." Proceeding to speak of the Pyrennees from per-

* P. 213. † Kirwan, p. 70. ‡ Townsend, p. 290.

sonal inspection, Townsend adds: "But what is most remarkable, is to see four enormous chasms, almost perpendicular, which divide both mountains and their vallies, and which appear as if they had just been rent asunder. Similar to these are the chasms on Chimborazo, particularly noticed by Humboldt*."

Molina remarks, concerning the smaller chains of mountains exterior to the great ridge of the Andes, that the disposition of the strata varies greatly in different places; and that in these derangements the laws of gravitation are seldom observed, as the substance which in one mountain forms the upper stratum, is frequently the inferior in another†.

"The whole of the Alpine region, considered as one mass, shows the most evident marks of dislocation‡."

"In Russia and Siberia the same phenomena

* P. 223, 224.

† Molina's History of Chili translated, &c. London, 1809, vol. i. p. 51, 52.

‡ Townsend, p. 207.

appear*." The dislocations above described are visible to every eye.

The convulsions experienced by the earth since it became the habitation of man, are farther attested and illustrated by the blocks and masses of particular species of stone, masses occasionally bearing the marks of having been rounded by attrition in agitated waters, which are found scattered on its surface, sometimes in inland regions, sometimes on the margin of the sea, in countries where no mountains of similar stone are known to exist within any such distance as to account by common causes for the position of the fragments, or to exist at all. Thus innumerable masses of granite lie detached in the country near the mouth of the Oder, and over marshes from St. Petersburg to Novogorod; and also near the mouth of the Elbe, and over Lower Saxony.—Various kindred phenomena are discoverable in Tortola, in England, in Ireland, and in Spain†; and others are repeatedly particularised by Saus-

* Townsend on the authority of Pallas.

† Townsend, p. 239. 241. 243. 245. See also De Luc's Lettres Physiques et Morales, tom. v. p. 83.

sure as evident in the regions bordering on the Alps*.

From this universal scene of confusion in the superior strata of the earth, let the student of natural theology turn his thoughts to the general works of God. What are the characteristics, in which those works, however varied in their kinds, in their magnitudes, and in their purposes, obviously agree? What are the characteristics by which they are all, with manifest intention, imprinted? Order and Harmony. In every mode of animal life, from the human frame down to the atomic and unsuspected existences in water, which have been rendered visible by the lenses of modern science; in the vegetable world, from the cedar of Lebanon to the hyssop by the wall, from the hyssop by the wall to the minutest plant discernible under the microscope: in the crystallisations of the mineral kingdom, of its metals, of its salts, of its spars, of its gems: in the revolution of the heavenly bodies, and in the consequent reciprocations of day and night, and seasons:—all is

* Saussure, Voyages dans les Alpes, tom. i. p. 215, 216. 226—230. ii. 138. 148. 205. 208. iv. 284, 285,

regularity. In the works of God, order and harmony are the rule; irregularity and confusion form the rare exception. Under the divine government, an exception so portentous as that which we have been contemplating, a transformation from order and harmony to irregularity and confusion involving the integuments of a world, cannot be attributed to any circumstance which in common language we term fortuitous. It proclaims itself to have been owing to a moral cause; to a moral cause demanding so vast and extraordinary an effect; a moral cause which cannot but be deeply interesting to man, cannot but be closely connected with man, the sole being on the face of this globe who is invested with moral agency; the sole being therefore on this globe who is subjected to moral responsibility; the sole being on this globe whose moral conduct can have had a particle of even indirect influence on the general condition of the globe which he inhabits.

The violence of the internal commotions, by which the dislocation of the strata constituting the exterior portion of the globe were effected, will receive irresistible proof, when we advance to other results equally or more astonishing, which

those convulsions produced. Agitating with kindred impetuosity the summits of the mountains and the abysses of the ocean, they confounded lands and seas in commingled devastation; and dislodging from one quarter of the world its plants, its trees, its animals, its fishes, its submarine vegetation, rolled away the spoils, and deposited them in the opposite extremities of the earth.

An objection, however, to this statement may perhaps be raised. On the authority of certain writers on geology it may be alleged, that the present earth was constructed from the materials of a former globe; and that the shells and other organic remains imbedded in our existing strata belonged to animals inhabiting that globe. In reply, then, it may be stated, first, that the hypothesis is gratuitous and unnecessary; and, secondly, that, if true, it would not invalidate the argument against which it is brought forward.

The hypothesis is gratuitous and unnecessary.—Natural reason cannot prove it, nor show a necessity for it. The grounds, so far as I am aware, on which it is rested, are two: that many of the shells and organic remains of marine animals, and the reliques of some land animals, dis-

covered in the earth, cannot be attributed to species known at present to exist: and that the immense extent of the beds of shells amalgamated into limestone, or aggregated without being consolidated, cannot be explained except on the supposition that they are derived from the ruins of an anterior globe. As to unknown species of marine animals, what know we of the profundities of the ocean? What know we of the species inhabiting at this moment those inscrutable depths, many miles, it may be, in perpendicular descent below the level which the longest sounding line has reached? Are we to pronounce concerning those depths and their inhabitants as though the flooring of the sea were spread before our eyes like the surface of Salisbury plain; or like the bottom of a pond which by drawing a bolt we had laid dry? As to the immensity of the quantity of shells discovered, it is undeniable that on the most contracted computation of chronology, for we ask not for the high antiquity of the present earth which infidelity assigns, sixteen centuries and a half elapsed between the creation and the deluge. Surely it is not too much to say, when the proverbially rapid multiplication of fish-

es is borne in mind*, that the period of sixteen centuries was sufficient for the production of masses so enormous of shells and organic re-

* As shell-fish inhabit the bottom of the sea, and are not migratory, it is not easy to adduce specific evidence, comprehending a variety of examples, respecting the ratio of their increase. Dr. Baster counted twelve thousand four hundred and forty-four eggs under the tail of a lobster, besides those that remained in its body unprotruded. Pennant's British Zoology, vol. iv. p. 11. Pennant also states, (ib. p. 9.) when speaking of the "vast quantities" of lobsters brought to the London market from the Orkney Isles and the eastern coast of Scotland, that "sixty or seventy thousand are annually brought, in well-boats, from the neighbourhood of Montrose alone." This was the number imported in the year 1772. It may have been greatly augmented since that time.

It is not unreasonable to suppose an analogy between shell-fish and other kinds of fishes, as to prolific powers. Leuwenhoek counted nine millions three hundred and eighty-four thousand eggs in a cod-fish of a middling size. Pennant's British Zoology, iii. 177. The immeasurable increase of the herring may be inferred from Pennant's description (ib. p. 336.) of the great shoal which annually appears off the Shetland islands in June. During the two preceding months, the advanced guard, as it may be termed, of the immense army precedes; and is marked

mains, as should be adequate, whether quietly upheaved in unbroken strata by the expansion of submarine fires, or ground through collision into fragments by the fury of the waters, to account for all the actual phenomena. The formation, growing almost under the eyes of the beholder, of immense reefs and considerable islands of coralline materials in tropical climates by the labours of minute marine animals of various kinds, illustrates the incalculable multiplication of shell-fish. And if extensive tracts at the bottom of the ocean became covered antecedently to the

by the flocks of gannets and other birds which prey upon it. "But when the main body approaches, its breadth and its depth are such as to alter the appearance of the very ocean. It is divided into distinct columns of five or six miles in length, and three or four in breadth." A similar conclusion as to the multiplication of pilchards is authorised by the enormous quantities which annually visit the coast of Cornwall. "The numbers that are taken at one shooting out of the nets is amazingly great. Dr. Borlase assured me that, on the 5th of October, 1767, there were at one time inclosed in St. Ives's Bay seven thousand hogsheads, each hogshead containing thirty-five thousand fish," in all, two hundred and forty-five millions.—Ib. p. 345.

deluge with shells and testaceous remains, who can reasonably affirm that by successive impulses of the waters in the hundred and fifty days during which the flood prevailed upon the earth, vast portions of these beds might not be piled one upon another; or that dense layers of mud, or of sand, or of stones, might not be poured upon them from other parts of the ocean; or that the new strata of earthy substances might not speedily be overspread with fresh masses of shells irresistibly driven by some new submarine commotion; or that these alternate strata might not then be uplifted and fractured by earthquakes and volcanic explosions, and left in horizontal or inclined or vertical directions, with every diversity of shape, and of mixture, and of confusion, which investigation has hitherto detected? But it is likewise urged by the objector, that reliques also of terrestrial animals belonging to a prior world have been discovered. Why belonging to a prior world? Because the original species are not at present known. If the skeletons then of the mammoth, or of the megatherion*, or the

* Shaw's Zoology, vol. i. p. 162.

horns of some unknown tribe of the class of the deer or the buffalo, have been found on the surface of the earth, or dug up from bogs and cavities; may not those animals still survive in the central solitudes of America, or in the depths of Northern Asia? Or may not they have been extinguished at the deluge; or subsequently exterminated by a roving population of hunters? Is not any one of these suppositions at least as philosophical, as to erect on a basis so narrow and slender as that in question, the hypothesis of an anterior world? If, fifty years ago, the bones of a kangaroo had been extracted from a mine or a morass; they probably might have been produced by some philosopher as triumphant proofs that our globe was constructed from the wreck of a predecessor.

A difficulty has also been raised on another ground. It is alleged that a longer period of time than is consistent with the Mosaic records would be requisite for the induration of rocks and stony strata from that state of softness, in which it is plain, from the unfractured condition of many tender shells imbedded in them, that these masses were piled together, if produced by the deluge.

Attention to some common phenomena may su
fice to show, that for this difficulty there is
foundation; and that, on the contrary, the gen
ral laws of nature seem to give on the whole
tendency to material bodies, when they are in
moist or softened state, promptly to acquire th
degree of hardness, which under the existing c
cumstances they are capable of attaining. W
know, for example, how soon a wet lump of cl
becomes very hard by the ordinary process
exsiccation under exposure to the atmosphe
Under a solstitial sun, and in a season of drougl
the surface of the earth is rendered, even in o
temperate clime, impenetrable to the instrumen
of agriculture: and we are thus enabled to ent
into the full import of the curse denounced agair
the Jewish nation in the event of their rebelli
against God; "Thy heaven that is over thy he
shall be brass," scorching as a brazen vault; "*a*
*the earth that is under thee shall be iron**." T
return of metals to a fixed state by cooling is e
tremely rapid. So likewise is the crystallisati
of metallic and other neutral salts. The tende

* Deut. xxviii. 23.

cy of gypseous substances to almost instantaneous induration is exemplified in the familiar instance of the consolidation of fluid plaster. A kindred tendency is manifested in lime by the formation of mortar. In crude calcareous earth, when diffused in the shape of invisible atoms in water, it is rendered equally apparent by all the varieties of stalactites and sparry concretions pendent from the domes or accumulating on the walls of caverns: and by the speedy and dense incrustation of every object which lies in the course of the stream from a petrifying spring*. That the same propensity exists in siliceous earth, is proved by the high mounds of flint raised on every side by deposition from the boiling fountains of Geyser in Iceland†. Nay, it is well understood by persons accustomed to witness chemical experiments, that the mixture of two bodies, each of which is previously converted into a perfectly transparent and aeriform state, may instantane-

* As at Matlock, and in other limestone districts.

† See Letters on Iceland by Von Troil, second edition, p. 342, &c.; and the description of the boiling fountains of Geyser in the recent publication by Sir James Mackenzie.

ously produce, by their union, a visible and solid substance. Thus if muriatic acid, and the salt commonly known by the denomination of volatile alcali, (in the systematic language of chemistry termed ammonia,) be separately transformed, as may be effected by a very easy process, into transparent gases, and then mixed together, a cloud of white powder is instantly produced by their incorporation; the gases are completely absorbed; and the powder proves, on examination, to be the neutral salt which results from the chemical union of the two ingredients in their ordinary states. I may add, as illustrative of the subject, an example which, many years ago fell very frequently under my notice at Scarborough, of the rapid formation of a hard ponderous substance by the union of its component parts in an aeriform condition. The cliffs on the shore between the town and the Spa consist of red clay, and contain pyrites. The spring-tides, driven against the base of the cliffs, had washed away portions of the clay; fragments of which, bleached, rounded into the shape of pebbles, but remaining soft to the touch, were daily to be seen lying mixed with the gravel near the mark of high water. Of

these clay pebbles, if I may use the expression, many had soon acquired a sort of metallic hue, sufficient to enable the eye, after some practice, to single them out at a little distance amidst the gravel. On examination they were found to be wholly covered with a coating of a new and hard substance of a uniform structure, in some cases barely thicker than a mere film, in others as thick as a shilling, in others as an eighth or a quarter of an inch, or even much more. In those of recent formation the white nucleus of clay was yet moist and soft; in the others, dry, but sometimes detached from the crust, and, when shaken, rattling within it like the contracted kernel of a nut within the shell, or the chrysalis of a silk-worm within its coccoon; in those of older date, perfectly hard, and incorporated with the crust, but always distinctly marked by its hue. Some of the specimens collected by me are still in my possession; and are now before me: and the pallid colour of the nucleus is as strongly contrasted as it was at first with the dark ferruginous brown of the crust. The crust appears evidently to be ironstone. Its metallic contents seem to have been furnished from the cliff, as likewise

vitriolic acid, in the form of gas, which held them in solution, and floated with them in the atmosphere, until the attractive clay pebble offered, as they passed over it, a suitable nidus for deposition. At low water I also observed, far from the cliffs, vast blocks of dark stone; of which some, having been broken by collision, discovered, by the light colour of a definite central part, that they had been originally formed round a large lump of clay*.

* It may well be doubted whether the stones, which have fallen from the air in different parts of the world, have not been suddenly formed, like hail-stones, in the upper regions of the atmosphere, by the union and accretion of ingredients sublimed and floating in the state of gases. Whatever be the difficulties of this hypothesis, they seem less formidable than those which attend the supposition of the stones being projected from a terrestrial or a lunar volcano. The want of discovery of such stones in the vicinity of any volcano; their total dissimilarity to lava, pumice, or any other volcanic production; the absence of all indications of their having been under the action of fire; the great distance of any earthly volcano whence they could have been thrown, as to the Wolds of Yorkshire, or to the middle of France; the immensity of the requisite force of projection from the moon

The account of the creation given in the first chapter of Genesis, though it may not negative the possibility that the chaotic mixture of terrene and aqueous particles might be derived from the dissolution of an antecedent globe, seems to contain nothing to favour such a theory. The phraseology of the first verse, the subsequent recital of the production of light, of the separation of the earthy from the fluid atoms into their respective collections, of the progressive formation of herbs and trees, of fishes, of birds, of beasts, of man; rarely I think, would convey to the mind of a reader unprepossessed by system any other idea than that of a primary creation of the whole.

But, farther, the hypothesis, if it could be verified, would fail to invalidate our general argument. For, in the first place, the universal dislocations and convulsions which it has been incontrovertibly shown that the exterior strata of the present earth have undergone, must necessa-

to carry them, even if the orifice of the lunar volcano happened at the moment to point towards the earth, beyond the sphere of the moon's attraction into the predominance of that of the earth: these facts seem to furnish insuperable arguments against a volcanic origin of the stones.

rily have destroyed the animated beings on its surface, any portion excepted which might be preserved by a miraculous interposition. Secondly, if there were a prior world, the existing organic remains must be *divided* between the ruins of that world and the present earth. And the smallest proportion of them which could in reason be allotted to the present earth would abundantly confirm the destruction already stated.—Thirdly, many of them will be found to be in their nature and circumstances such as could not be ascribed otherwise than to the present earth, without the grossest violation of every principle of probability.

We proceed, then, to the actual phenomena.

Evidence shall again be, in the first instance, adduced from our own island.

In the limestone rocks of Dovedale, near the centre of the kingdom, and in the calcareous region which constitutes so large a portion of the district denominated the Peak, marine shells are continually found incorporated. The gray Derbyshire marble is an entire mass of marine productions.

"In the alluvial gravel below Newton (near

Bath), not far from the river, several tusks, supposed to be of the mammoth, possibly of the elephant, have been discovered." One of them measured six feet in length. "At Brentford, near London, two teeth of the hippopotamus, and the entire tusk of an elephant, nine feet long, with other bones of the same animal, and several nautili, were dug up at the depth of thirty feet*."

The head, three feet long, of an alligator, as is supposed, the jaws of which contain one hundred and twenty teeth, and the vertebræ of the back to the length of six additional feet, besides six joints of the tail, were extricated from a quarry near Bath. Similar jaws abound at Charmouth. An alligator has also been found in black marble in Derbyshire†; and in the alum rock near Whitby‡.

"The coral bed" (in a stratum of limestone between Midford and South Stoke) "contains the madrepora cinerascens, which is found recent in

* Townsend, p. 229.

† Townsend, p. 275, 276.

‡ Phil. Trans. abridged, vol. xi. p. 259. 289.

the Indian seas. One of these curious petrifactions was standing upright more than five feet high, and expanding nearly six feet, with a double cup*."

I might proceed through an enumeration of all the districts of chalk and calcareous earth throughout the kingdom, with an attendant catalogue of marine remains, including the corallines, madrepores, and lythophytes of hot climates, which have been detected in them. Examples might be accumulated from Townsend singly. But it appears sufficient to subjoin his general declaration: "In no part of Great Britain have I seen a primitive limestone; that is, such a limestone as in none of its beds contains extraneous fossils†."

It is not, however, merely in calcareous strata that shells and marine reliques are discoverable.

In the eastern part of Derbyshire, muscles imbedded in argillaceous ironstone, and vegetable and animal impressions within nodules of the same substance, are plentiful‡.

* Townsend, p. 272. † Townsend, p. 284.

‡ Explanation of a tablet representing a section of the strata in Derbyshire, by White Watson, F.L.S. Bakewell, 1797.

In the west of England similar facts occur.—"In the pennant-stone, a schistous rock containing quartzose sand with mica, iron, and much argil, impressions of marine plants abound."—More than thirty distinct species were collected at Stapleton near Bristol*.

In the marly clay of the coast of Essex, the large chambered nautili, and other shells of warm climates, are deposited. Similar nautili have been found in the Isle of Sheppy; and also at Sherborne in Dorsetshire, and at Richmond in Surrey. Within the last thirty years, numerous teeth, many tusks, and some bones of elephants, tusks of the hippopotamus, teeth of other kinds, and many horns of unknown species both of the ox and of the elk, have been collected from Walton cliff. The copiousness of the remains of elephants in that neighbourhood is thus attested by Townsend: "No less remarkable are the spoils of elephants, here found in vast abundance. In one day's excursion with Dr. Menish, we added to our collections two tusks and three teeth, the ivory of which is in the highest state of preser-

* Townsend, p. 278.

vation. One tusk in a state of calcination measured nearly seven feet." It is remarkable that vast teeth are mentioned by Roger de Coggeshall, who wrote at the beginning of the thirteenth century, as having been found at Walton in the reign of Richard I. As two hundred ordinary teeth might be cut out of one of them, they were considered as having belonged to a giant. Fossil wood is also found there in large quantities*.

In a range of hills near Bromley in Kent, is contained a bed of siliceous shingle, and sea-sand, with oyster-shells, many of which are turned up by the plough†.

The stratum of blue clay of Hampshire, and of the Isle of Sheppy, replete with shells, of which few have been ascertained to belong to European seas, has been discovered at Kew; and also in cutting through Highgate hill‡.

Sea-shells of various kinds and of various latitudes are also found in strata of sand; as in Wiltshire, Devonshire, Berkshire, and Essex§.

* Townsend, p. 246—255. † Ibid. p. 251, 252.

‡ Transactions of the Geological Society, vol. i. p. 336—338.

§ Townsend, p. 260—264.

In hard slate on the base of the high mountain, Ingleborough in Yorkshire, vegetable impressions consisting of pyrites are not unfrequent.

In coal-beds sea-shells are occasionally seen, and also vegetable impressions: on the contiguous shale the latter are often in profusion.

The description which has now been furnished of the immense accumulations in Great Britain of marine exuviæ, assembled even from distant quarters of the globe, may be extended to all the parts of the world which have been examined by scientific naturalists.

France is overspread with shells incorporated with limestone. In Touraine, a hundred miles from the sea, is a bed of shells stretching nine leagues in extent, and twenty feet in depth, and including shells not known to belong to the neighbouring sea*. Similar collections exist in Italy, Spain, Holland, Brabant, Germany, Poland, Sweden, Russia†.

Prodigious heaps of sea-shells were discovered by Dolomieu on the flanks of Etna near two thousand feet above the sea: and strata of clay,

* Kirwan, p. 34, 35. † Ibid.

filled with marine shells, at an additional height of four hundred feet*.

Nautili, and shells of similar climates are found at Schwerin; and madreporites in Hungary. The coral lithophytes are in their native state confined, so far as we know, principally to the torrid zone, and uniformly within lat. 34°: yet in the form of solid limestone they are spread over the north almost to the granitic mountains bordering on the Frozen ocean†.

Pallas observed the calcareous rocks in the Crimea to be replete with shells. The case is the same in Siberia, and on Caucasus. Professor Link and M. Peyrouse found marine productions on the Pyrennees at the height of nearly ten thousand six hundred feet above the sea‡.

Sea-shells were noticed over all the mountains of Lybia, and petrified fish on mount Libanus, by Dr. Shaw; in Timor, by Peron; on the hills of Wager Island near Cape Horn, by Byron. In Jamaica Dr. Clarke found immense collections of corallines on the Blue Mountains, three

* Kirwan, p. 103. † P. 222. 240. 246.
‡ P. 283. 289, 290. 294.

thousand feet above the sea. In Chili, the mountains collateral to the Andes consist of strata abounding with marine productions, and with impressions of animals and vegetables; and in some instances there appear shells scarcely if at all decomposed*. Marine productions abound in the calcareous Alps of Savoy; on the mountains of the Hartz they were observed by Lasius; on Mount Gronier by De Luc; on the mountain of Terglore in Carniola by Baron Loits; on the Siberian mountains by Renovants; on a mountain in Peru at the height of fourteen thousand two hundred and twenty feet by Ulloa, who, when visited at Cadiz by Townsend, showed to our countryman his cabinet of marine productions collected by himself on the summits of high mountains in America. Humboldt found sea-shells at Huancavelica, at fourteen thousand one hundred and twenty feet above the level of the sea. Molina states that petrified oyster-shells, conchs, and other marine substances, deposited by the deluge, are abundant on the summit of Mount Descabezado, in the center of the

* Molina's Chili, vol. i. p. 51—53.

promiscuously imbedded in the same heap, those of cold regions are discovered in the torrid zone. In Germany, and other parts of Europe, are found, on the one hand, animals and vegetables of the southern seas; on the other, teeth of the Arctic bear, and the bones of whales*.

On coal, or among its accompaniments, in Italy, sea shells and vegetable impressions are frequent. The latter are regarded by some botanists as belonging to plants of the Eastern or Western Indies; by Blumenback they are attributed to unknown species†.

In our continents various trees are discovered at great depths, and, as at Meissen, in Hessia, even under lofty mountains. Often they are blended with marine remains, and are sometimes deposited on elevated summits, where the cold would have precluded the possibility of their natural growth. Strata of bituminous wood exist in Italy, France, Germany, Bohemia, and Iceland‡.

Townsend, p. 410. Kirwan, p. 56.

† Kirwan, p. 323.

‡ Kirwan, p. 36, 37. Towsend, p. 280.

In Mexico, in Peru, and in Chili, Humboldt observed bones of the mammoth and the elephant. "In the Ural Mountains, as soon as we have ascended the high ridge in which all the rivers rise which fall either into the Caspian Sea, or the Frozen Ocean, and begin descending to the North, we meet with the bones either of the mammoth or of elephants, dispersed among marine productions." Pallas, to whom Townsend in the preceding passage refers, met with remains of elephants near Astrachan. In every part of Siberia he saw them; and at times in heaps containing the bones of many elephants, and surrounded by marine vegetables, and accompanied by shells not known to belong to the Northern Ocean. In Siberia, also, he discovered a phenomenon still more impressive: the entire carcase of a rhinoceros, the whole of which, when first exposed by the fall of the bank of a river in which it was imbedded, was uncorrupted, and had part of the skin and hair remaining and unchanged*. In a letter written for the in-

* Townsend, p. 235. 291. 300. Kirwan, p. 55, 56. 60. 68.

formation of the Royal Society of London*, Pallas gives the following statement, which implies that such undecayed reliques are not unfrequent. "In this ridge of mountains (the Uralian) that makes the natural limit between Europe and Asia, and to the east of which the largest share of true remains of elephants, rhinoceri, and buffaloes is found in the banks of all the larger rivers that run from the above mentioned chain of mountains to the Northern Ocean, and yield such remains from the places where they reach the plains of Siberia (no such bones being ever found in the higher mountains) to the very ocean: where the frozen earth of the northern plains preserves the remains of southern animals in such perfection, that when I was at Irkuzk, the head and two legs of a true rhinoceros were sent from the river Wilni, with its skin, and part of the tendons preserved on them, which are now in the museum of our academy, and are fully described and figured in the 17th volume of Nova Commentaria Petropolitana."

* Philosoph. Trans. Abridged. London, 1809. Vol. xiv. p. 99—102.

It has been justly remarked that the climate of Siberia, at the time when the carcase of the rhinoceros was deposited there, must have been as cold as it is at present; otherwise the flesh must have been speedily consumed by the common course of putrefaction. And it may, perhaps, be added, with equal justness, that the circumstance of decay not having taken place during the transportation of the animal from the immense distance of its native clime, proves the extreme rapidity of its conveyance, and the corresponding violence of the convulsion by which that conveyance was effected.

"Poland exhibits extraneous fossils in abundance; more especially in its salt-mines, from which the cabinets of naturalists are supplied with some of their best madreporæ and sea-shells*." In Hungary, also, are found sea-shells, and other marine exuviæ, in the beds of clay and gypsum which separate the layers of rock-salt†. Such combinations of marine reliques

* Townsend, p. 291.

† See Kirwan, p. 368—392. The salt works on the Carpathian Mountains amount to two hundred. Townsend, p. 290—292.

with subterranean masses of salt, confirm the supposition, independently natural, that the saline accumulations which appear either in the solid form of rock-salt, or liquefied in salt-springs and lakes, were originally depositions from the sea; and consequently that their existence in the firm substance of the land attests the convulsions which have agitated and deranged the structure of the exterior strata of the globe. In this point of view, their magnitude and universality are features important to the present argument. The following summary, therefore of information concerning them may properly be subjoined. Those parts of it respecting which other authorities are not mentioned are taken principally from Kirwan*.

Immense deposits of marine salt subsist in each of the four quarters of the globe. In Europe it is found; in England, Spain, Austria, Styria, Hungary, Transylvania, Poland, Switzerland, Bavaria, Siberia, Calabria, and in Sa-

* Holland, on the salt districts of Cheshire, in the Transactions of the Geological Society, p. 56.

voy, at Arbonne, nearly in the region of continual snow.

These deposits are in many cases scarcely to be termed, or in reality are not to be termed, subterranean. There are mountains which may fairly be described as wholly consisting of salt: as the salt-mountain of Cordova, in Valencia, which rises in altitude from four to five hundred feet, and is about three miles in circumference. There are others in Algiers, Tunis, Calabria, Siberia, and in the vicinity of Astrachan, nearly or entirely composed of salt.

Rock-salt is abundant in the mountainous ridge at Tshaptshatshi, which rises in the middle of a steppe, in the country of the Kalmucks, by whom the ridge is denominated Arsargal Shoogoot, the Saline Mountains*. A saline mountain of stupendous magnitude is said lately to have been discovered in Louisiana†.

* Travels through the southern provinces of the Russian Empire in 1793 and 1794. Translated from the German of Pallas. London, 1802. Vol. i. p. 156.

† Thoughts on the Laws relating to Salt, by S. Parkes. London, 1817. p. 125.

In many mines the quantities of salt are enormous. In the mine of Torda the stratum of salt is from thirty to forty fathoms in thickness: at Colopen it is fifty fathoms. At Northwich the upper stratum varies from twenty to thirty yards in thickness; and the lower, though a mine has been sunk in its substance to the depth of forty yards, has not yet been perforated*. Of these beds it is affirmed by a scientific enquirer, that probably the constant working of them for some thousands of years to come would not exhaust them†. The great mine, at Wilicksa, in Poland, is stated, by Coxe, to be nearly six thousand seven hundred feet in length, more than eleven hundred feet in breadth, and seven hundred and forty-three in depth.

Salt springs are very numerous. In England many are known. They are frequently discovered by maritime plants growing within their influence‡; plants vainly to be sought by the

* Holland, as above, p. 55.

† Parkes, p. 122, 123.

‡ As Triglochin maritimum, Aster Tripolium, Salicornia, Salsola Kali, Glaux maritima.

botanist again until his travels conduct him to other salt springs, or to the sea-shore, or to the mouth of an estuary. The salt spring at Shirleywick, in Staffordshire, though in the central part of the kingdom, is encircled by such plants. A single pit at Northwich supplies four thousand tons of salt annually. At Droitwich in Worcestershire, where the salt springs, equalling or surpassing in strength any other in Great Britain, and lying on a bed of rock-salt of unknown depth, are proved by a charter of Kenulf, King of Mercia, to the church at Worcester, to have been worked as early as A. D. 816. The brine is so copious, that nine-tenths of it are permitted to run to waste. Yet the quantity of salt actually made there is very great*. The yearly product of the springs at Koningshorn in Westphalia, approaches to six thousand tons. That of the old spring at Luneburg exceeds twenty-seven thousand tons.

The whole annual quantity of salt at present made in England is stated, by Parkes, to be

* Nash's History of Worcestershire, 2d edition, vol. i. p. 296. 299.

one hundred and ninety-five thousand tons; of which fifty-five thousand are employed in domestic consumption, and the rest is absorbed in our fisheries or in exportation*.

Salt lakes are in many parts frequent; occasionally in Russia, and particularly in Siberia and the Crimea. In Africa they are not seldom found on the summits of mountains.

In no country does an interior accumulation of salt manifest itself more powerfully, or by more varied testimonies, than in Chili. Salt lakes are common; and some of them are from twelve to twenty miles in length. The provinces of Copiapo and Coquimbo are rich in salt springs; and the corresponding portion of the Andes includes several mountains of fossil salt. In Copiapo there is a river denominated Salado, from the extreme saltness of its waters; which, as Molina observes, in terms indicating its magnitude, has its source, "like *the other large* rivers," in the Andes, and falls into the Pacific Ocean. The salt crytallises in great purity along its banks. In a valley in the Andes, in

* Thoughts on the Laws relating to Salt, p. 197.

lat. 34° 40′, inhabited by the Pehuenches, and about fifteen miles in circumference, the ground is entirely covered to the depth of six feet with pure salt spontaneously crystallised from eleven springs. It is collected in large masses for domestic purposes*.

The facts which have now been adduced appear to suggest and to substantiate the following conclusions.

The earth, as to its exterior strata, is not at present in the same condition in which it was when it came forth from the hand of its Creator; but has manifestly undergone universal and violent and overwhelming convulsions of such a nature as to spread general destruction among the animated inhabitants of its surface at the time of the catastrophe.

Such a convulsion of the globe can be assigned to no other cause than the will of its Creator; and must, therefore, be regarded as His act. Whether it pleased Him to accomplish it by an immediate interposition of His

* Molina's History of Chili, translated, &c. vol. i. p. 39, 40, 41. 66.

power, or through the medium of secondary causes previously arranged by Him in such a manner, as to burst into effect at the appointed time, is a point of indifference to the argument.

A convulsion thus effected by the hand of the Creator, and reducing, at the time of its occurrence, the inhabited surface of the earth into a state of desolation and ruin, does not appear to admit of any other explanation than the following: that a moral change calling for such an event had taken place in that portion of the inhabitants of the earth, which was endued with moral agency and responsibility; in other words, that mankind had offended their Creator, by transgression of his laws, and had brought upon themselves penal consequences of disobedience. For other suppositions, abstractedly capable of being assigned for the subversion of an inhabited globe, as that the Deity purposed to employ it in a new mode, or no longer to employ it at all, are negatived by the fact, that He was pleased to continue to employ it, and to re-people it, in whatever way, with tribes of beings similar to those which he had destroyed.

The universality of this overwhelming convulsion, and the corresponding co-extensiveness of the destruction, prove the general infliction, and, consequently, the state of transgression to have been universal. It was not a partial visitation upon a separate portion of offenders, like the fiery tempest on Sodom and Gomorrah. It was the descent of avenging justice to envelope a world lying wholly under the penalty of Sin.

By this universal convulsion shaking the earth to unknown depths, and piling the reliques of the ocean on the summits of the mountains, it is evident that the human race must have been totally extinguished, had not the Creator been pleased, in the midst of judgment, to remember mercy, and by some mode of miraculous interference, or by some specific direction and provision, to preserve certain individuals for the continuation of the race, when the avenging dispensation should have passed away. And if some individuals were mercifully spared and protected, in order that ultimately they might replenish the earth with their posterity; it is reasonable to conclude, that the principal, at least, of the persons, who should thus find grace in the eyes of God,

might be selected in consequence of being distinguished by comparative superiority, however imperfect, in obedience.

If it be objected, that the whole race might be extinguished by the convulsion, and that a completely new creation of mankind might ensue, when destruction had finished its work; it may be replied, first, that the other alternative, the supposition, that some individuals were spared, is, at least, equally probable to natural reason; secondly, that it is the less difficult, and therefore the more probable supposition. For the objector has either to affirm that the new race, namely, the present race of men, was created sinful as they now are; or to account *de novo* for their actual sinfulness.

Is it necessary to pause, and to indicate to a single reader the testimony which, in all the preceding conclusions, Natural Theology is bearing to Revelation? Is it necessary to specify the decision with which her hand is pointing to those fundamental truths respecting human transgression, which lie at the root of the divine plan of salvation through a Redeemer?

But an additional conclusion, bringing also its portion of kindred testimony, remains. The convulsion must have been occasioned or accompanied by a tremendous and a universal deluge; by a deluge precisely corresponding with the Scriptural account of that penal Flood, for the production of which the fountains of the Great Deep were broken up, and the windows of heaven were opened. To overspread the plains of the Arctic Circle with the bodies of elephants and rhinoceri, and with the shells of Indian seas; to accumulate on a single spot, in promiscuous confusion, the marine productions of the four quarters of the globe: what conceivable instrument would be efficacious but the rush of mighty waters? And however widely the windows of heaven might be opened, however vast, however persevering, might have been the torrents precipitated from the clouds; to whatever altitude above the summits of the highest mountains, the waters might gradually be uplifted by inexhaustible rains from on high: by what instrumentality were the mighty waters impelled with the force requisite for whirling the spoils of different regions of the earth to their antipodes,

but by the breaking up of the fountains of the Great Deep, by the agency of those commotions, of those explosions, of those disruptions below, which, heaving up the ocean from its profoundest recesses, hurled its billows with resistless momentum in every direction round the globe, and shattering and dislocating the superincumbent strata, sought to elevate even to the level of the pinnacles of the Alps and the Andes the primeval bed of the seas?

Whether the penal infliction followed sooner, or later, after the offence, Natural Theology could not undertake to infer. Nor is it of the slightest importance to the argument before us, whether the punishment instantly overtook the transgressors; or whether the Deity, in order to allow opportunity for sin to manifest its heinousness by its fruit, universal depravity; or to evince his own forbearance, and mercifully to afford to sinners, means and encouragements for repentance, delayed for many years the catastrophe, which obstinate iniquity finally rendered indispensable. In either case, the holiness of the Deity in His detestation of sin, His justice in punishing a guilty world, His mercy in preserving a remnant of

the fallen race, and the testimony of Natural Theology to these Divine Attributes, are the same.

CHAP. III.

THE ACTUAL APPEARANCE OF THE SURFACE OF THE EARTH CORROBORATES THE CONCLUSIONS DEVELOPED IN THE PRECEDING CHAPTER.

AMONG the discoveries which have been shown to be attainable by Natural Theology, through an investigation of subterranean phenomena, is the very important fact, that a deluge was the penal instrument, which it pleased Omnipotence to employ, in reducing the exterior strata of the globe to their existing state.

This conclusion receives additional confirmation from a survey of the present superficies of the earth. In every region, in every portion of every region, the surface testifies that its form was produced by the action of water, by the action of *retiring* water; testifies that no mode of instrumental agency, within the circle of our experience, and the cognizance of our judgment, could have produced the existing form of the surface of the earth, but the action of retiring water.

In the largest continents, no less clearly than in the smallest island, there exists a gradual descent from the highest elevation to the circumjacent seas. In whatever part of the general tract that elevation may be placed, whether approaching to one of its extremities, as the Alps on the continent of Europe, or nearer to the centre, as in Asia the stupendous mountains of Tartary and Thibet; or stretching in a continuous chain along one of the boundaries, as the Andes range themselves throughout the length of South America; the gradual descent, be it more or less rapid, to the surrounding ocean is incontestable. The proof in every land is at once furnished by its rivers. Place before your eyes an extended map of the globe. Observe from the snowy piles of Switzerland the Rhone conveying its waters into the Mediterranean, the Po into the Adriatic, the Rhine into the German ocean, the Danube into the Euxine. Observe from the Tartarian ridge the Ganges and the Boorampooter tending to the Bay of Bengal, the Yellow river to the Eastern sea, the Lena and the Tunguska to the Arctic ocean. Observe from the Andes an infinity of streams precipitating themselves on the western

side into the Pacific ocean; and on the eastern, the enormous river of the Amazons directing its course across the whole breadth of the continent into the Atlantic. Observe universally, in every component district of each of these continents, the inferior rivers conducting their own tribute from the mountain to the hill, from the hill to the imperceptibly sloping plain either into the contiguous sea or into those mightier streams which hold a direct intercourse with the ocean. Observe in each subordinate part of each district, observe in every part of our own island, as the most familiar and obvious example, the same process, from the spring to the rill, from the rill to the brook, from the brook to the rivulet, from the rivulet to the river, from the river to the sea. Contemplate also the general face of the country, to a distance on each side of rivers in Great Britain, or in any other region. The accompanying appearances, displayed, as might reasonably be anticipated, under a large diversity of modifications, usually consist in ranges of high grounds, attending, at a greater or a less distance, the course of the river; and with fronts more or less abrupt towards the river in proportion to the hardness

or the softness of the materials of which they are constituted. These high grounds, worn, it may be, and whirled in various parts into recesses, cavities, and basons, by the eddies and circumvolutions of the waters acting of old on the softened mass, indicate the banks of the channel which the river filled for a season, when it was yet rolling with unnatural magnificence during the subsidence of the Deluge whence it originated.—Occasionally, and far within these elevated ranges, are seen corresponding ranges, or parts of ranges, of inferior elevation, marking progressive diminutions of the primeval stream. Between these innermost ranges, the land is expanded and smoothed into a vale or a plain; the effects of the levelling operation of water, when, having exhausted the extraordinary supplies by which it had been fed from the loftier parts of the country, and approximating towards a stagnant state, it overspread the flatter tracts as a lake, and gradually deposited the soil with which it was charged. And finally, there remains the actual river; which having subsequently drained away the lake, has shrunk within its present banks, into the comparatively petty channel, contracted and petty though it be

the Nile or the Maragnon, which the contributions of perennial springs and ordinary rains may now enable it permanently to fill.

The marks of a similar process, in miniature, but with every token of accordant analogy, are continually visible along the course of rivulets and brooks.

With the valley in which a river or a brook at present flows, collateral valleys of a smaller size, but without a stream, frequently unite themselves. Though originally scooped out by the water in the same manner as the larger valley into which they tend; they posses not any springs, or none sufficient to sustain a rill. They are the dry and vacant records of a stream that survived not the Deluge which gave it birth. But to the ear of the pupil of Natural Theology, the stream *though dead yet speaketh.*

If we inspect the high banks of a river after the subsidence of a flood, we see them marked horizontally by ranges of indentations or furrows, resembling the mouldings of a cornice, and denoting successive stages in the sinking of the stream. When the heights which bounded a mighty current formed by the retiring deluge

were composed of soft materials, as marl, or sand, or soil, or crumbling stone; the horizontal excavations successively produced on their sides by the action of the stream, near the level of its surface, would soon be obliterated by the mouldering influence of seasons. When the heights were composed of granite, or of other rocks equally hard, such impressions might not be effected; or might be engraved so slightly as long to have been effaced. But it is not unreasonable to expect, that occasionally the boundaries might be of a texture so constituted as to be capable both of receiving the impression, and of retaining vestiges of them even to the present day: and that if the views which have been developed in the present chapter be just, examples of such vestiges will have occurred amidst the widely extended researches of scientific travellers. The expectation may be fully satisfied. On the naked and perpendicular rocks of Mount Saleve, Saussure remarked various ranges of horizontal furrows, broad and deep, bearing in their form, in their direction, and in the rounded curvature of their edges, the clearest proofs of

their formation by the passage of waters*. He also describes corresponding and equally decisive phenomena onMount Jura†.

Is it too much to have said, that no mode of instrumental agency within the circle of our experience and the cognizance of our judgment could have produced the existing form of the surface of the earth, except the action of retiring water?

Thus, while the exterior strata of the earth, by recording in characters unquestionable and indelible the fact of a primeval and penal deluge, attest from age to age the holiness and the justice of God: the form and aspect of its surface are with equal clearness testifying from generation to generation His inherent and not less glorious Attribute of Mercy. For they prove that the very deluge, in its irruption employed as the instrument in his dispensation of vengeance to destroy a guilty world, was in its recess so regulated by Him as to the varying rapidity of its subsidence, so directed by Him throughout all

* Voyage dans les Alpes, tom. i. p. 222, 223.

† Tom. ii. p. 33, 34.

its consecutive operations, as to prepare the desolated globe for the reception of a restored succession of inhabitants; and so to arrange the surface as to adapt it in every climate for the sustenance of the animals, for the production of the trees and plants, and for the growth and commodious cultivation of the grain and the fruits, of which man, in that particular region, would chiefly stand in need.

During the retirement of the waters, when a barrier of a rocky stratum, sufficiently strong for resistance, crossed the line of descent, a lake would be in consequence formed. These memorials of the dominion of that element which had recently been so destructive, remain also as memorials of the mercy of the Restorer of Nature; and by their own living splendors, and by the beauty and the grandeur of their boundaries, are the most exquisite ornaments of the scenes in which we dwell.

Would you receive and cherish a strong impression of the extent of the mercy displayed in the renewal of the face of the earth? Would you endeavour to render justice to the subject? Contemplate the number of the diversified effects

on the surface of the globe, which have been wrought, arranged, and harmonised, by the divine benignity, through the agency of the retiring deluge: and combine in your survey of them the two connected characteristics, utility and beauty, utility to meet the necessities and multiply the comforts of man, beauty graciously superadded to cheer his eye and delight his heart, with which the general aspect of nature is impressed. Observe the mountains, of every form and of every elevation. See them now rising in bold acclivities; now accumulated in a succession of gracefully sweeping ascents; now towering in rugged precipices; now rearing above the clouds their spiry pinnacles glittering with perpetual snow. View their sides now darkened with unbounded forests; now spreading to the sun their ample slopes covered with herbage, the summer resorts of the flocks and the herds of subjacent regions; now scooped into sheltered concavities; now enclosing within their ranges glens green as the emerald, and watered by streams pellucid and sparkling as crystal. Pursue these glens as they unite and enlarge themselves; mark their rivulets uniting

enlarging themselves also: until the glen
›mes a valley, and the valley expands into a
vale or a spacious plain, each varied and
nded by hills and knolls and gentle uplands,
›me parts chiefly adapted for pasturage, in
rs for the plough; each intersected and re-
ıed by rivers flowing onward from country
ountry, and with streams continually aug-
ted by collateral accessions, until they are
ly lost in the ocean. There new modes of
ıty await the beholder; winding shores,
capes, rugged promontories, deeply in-
ed bays, harbours penetrating far inland and
:cted from every blast. But in these vast
magnificent features of nature, the gracious
hor of all things has not exhausted the at-
ions with which He purposed to decorate
imate objects. He pours forth beauties in
l, and with unsparing prodigality of mu-
ence, and for whatever other reasons, for
an gratification also, on the several portions,
ever inconsiderable, of which the larger
ponent parts of the splendid whole consist:
:he rock, on the fractured stone, on the
:et, on the single tree, on the bush, on the

mossy bank, on the plant, on the flower, on the leaf. Of all these works of his wondrous hand He is continually varying and enhancing the attractions by the diversified modes and accessions of beauty with which He invests them, by the alterations of seasons, by the countless and rapid changes of light and shade, by the characteristic effects of the rising, the meridian, the setting sun, by the subdued glow of twilight, by the soft radiance of the moon; and by the hues, the actions, and the music of the animal tribes with which they are peopled. While Natural Theology perceives the Creator thus lavishing sources of pure and innocent pleasure on the abode of a race of transgressors; well may she listen with admiring yet undoubting faith to the voice of Revelation, which tells her that the eternal delights ordained for the redeemed of the Lord in those new heavens and that new earth wherein dwelleth righteousness, ordained for them by Him who is able to do exceeding abundantly above all that we ask or think, shall be such as eye hath not seen, nor ear heard, neither hath it entered into the heart of man to conceive.

The wisdom and the kindness of God in preparing afresh the abode for the human race, through the instrumentality of water withdrawn by a rapid subsidence, as has been shown to have been the case, rather than by the slow process of simple exsiccation, are manifest. Had the earth been dried merely by evaporation, or by quiet absorption, the result apparently must have been, that a very large proportion, perhaps nearly the whole, of its surface would have been permanently left a confused assemblage of pools, swamps, and hillocks. A recent traveller describes a wide extent of the great desert in the north of Africa as in its surface adust, hard, unproductive, doomed to unalterable barrenness; with the exception of certain small dells or depressions from thirty to forty feet below the general level, containing from one to four or five acres a-piece, and separated each from the other by a distance of ten, fifteen, or twenty miles. These specks alone are moist, verdant, and habitable*. Had the earth been left after the deluge

* Riley's Narrative of the loss of the American Brig Commerce, wrecked on the western coast of Africa in 1815, &c. p. 392.

to the simple process of exsiccation, the preceding description, reversed by the substitution of hillocks for depressions, and of swamps for burning wastes, might have characterised its general aspect. I do not say that such a surface might not have been capable of sustaining human life. Yet how incommodious, how uncomfortable, how noxious, would it have been, in comparison with the admirably arranged expanse which has been provided for us. How would man have been insulated from man, debarred from the exercise of social virtues, from the participation of social happiness, from intellectual, moral, and religious improvement! In particular spots of the present surface, swamps were to be expected, and they occur; yet in most cases probably they are such, as in due time to be vincible by human perseverance. The fens of our own island and the morasses of Holland speak loudly as encouraging examples.

I have termed the kindness of the Deity in preparing such a place of residence for mankind, after the penal Deluge, a mercy. The term is relevant. For Natural Theology could not know whether the taint of rebellious principles

might not adhere to the nature of the restored inhabitants. If she could not know that it would adhere, she must see that the fact might be so. If the new race sprang from a preserved remnant of the old; the probability from the general analogy of animated nature might be strong, that the taint would be found to have descended from the parent to the offspring. And that, amidst the general punishment, a remnant of the old race would be graciously spared by God, already proved, by independent arguments, to be a God of mercy, was a conclusion not easy to be set aside.

But Natural Theology is endowed with organs of hearing, no less than of vision. From every quarter of the world she hears the voice of Pagan tradition proclaiming the memory of an ancient and a penal Flood. With a concurrence, bearing a resemblance to that, with which on the day of Pentecost so many languages united in publishing the wonderful works of God, she hears the Roman, and the Greek, and the Mexican, and the Hindoo, referring to a judicial visitation of waters, by which their forefathers were overwhelmed. Questions as to the source of

this tradition so widely expanded over ages and over countries are here out of place and immaterial. However we may suppose them decided, the fact that the tradition has been, and is, thus widely expanded, remains unchanged and undeniable. In the place of an accumulation of separate testimonies from Eusebius, Grotius*, and other writers; the attestations of Sir William Jones will be sufficient. "If the Deluge really happened at the time recorded by Moses, those nations whose monuments are preserved, or whose writings are accessible, must have retained memorials of an event so stupendous, and comparatively so recent: but in fact, they have retained such memorials. This reasoning seems just: and the fact is true beyond controversy." —"The narrative of a Deluge which destroyed the whole race of man except four pairs," he elsewhere terms a historical fact, admitted as true by every nation to whose literature we have access†." What if it be objected that the tradition

* Eusebius, Præp. Evang. lib. ix. Grotius de Veritate, lib. i.

† Sir William Jones's Works, 8vo. London, 1807. vol. iii. p. 193. 197.

has been antiently borrowed from the writings of Moses, yet that these writings may be false? Into the veracity of these writings we are not now enquiring. Our subject is Natural Theology.—Mark then in what state the objection leaves the case. We have the fact admitted, admitted by the objector, of this general tradition of a deluge; a tradition borrowed, as he affirms, from the writings of Moses, but borrowed by the heathen world, be it observed, ancient and modern, of whose component nations not one ever embraced the revelation of Moses, not one ever acknowleged his authority; nations of whom the principal number are totally ignorant, that there ever were such writings, or that such a man ever existed. Let the objector explain, why it was that the heathen nations borrowed and adopted any fact from the writings of Moses. When he has furnished that explanation, let him satisfy us why, amidst their rejection of the authority of Moses, a general Deluge was singled out from his narrative, as worthy of concurrent adoption. Assuredly, he will not say, that it was singled out by Greeks, and by Romans, by Americans, and by Hindoos, because they had

examined into the strata of the earth, and had discovered, that the disruptions and dislocations could have been produced only by a universal Deluge; because they were convinced, that the bones of Elephants and Hippopotami could have been imbedded in the cliffs of Essex, and the terrestrial animals and the corallines of the Torrid Zone have been scattered over the Arctic Circle, only by a universal Deluge. If then without these additional data, if without this new ground on which in our day Natural Theology advances firmly to fix her foot, if without a particle of reverence for the revelation of Moses, if in general ignorance of the existence of his writings, and of himself, the heathen world has ever concurred, and now concurs, in maintaining the existence of a general Deluge, what reason can be assigned for this extraordinary concurrence of tradition? This reason, and this alone: that such a Deluge actually took place; and that the memory of a catastrophe so tremendous naturally was conveyed from father to son, in successive generations of descent from the individuals who were preserved amidst the destruction of mankind, and is still manifesting its ves-

iges, is still bearing witness to the truth, in the sentiments and tenets even of savages and idolaters.

Possibly, however, there may be persons inclined to hazard a doubt, whether the tradition, though decisively established, be a circumstance properly within the scope and province of Natural Theology. On what foundation could such a doubt be rested? Is not the general tradition respecting a Deluge a positive fact? Is it not a fact as distinct and demonstrable as the disarrangement of the strata in the Alps, or the discovery of an uncorrupted Rhinoceros in Siberia; a fact, which by observation and natural reason man is capable of ascertaining; a fact manifesting in its fair inferences an important bearing on the knowledge to be attained, independently of Revelation, concerning the Deity, and our relations to him*? There is not, there cannot be, a fact, whatever be its nature, whatever be the place, or the time, or the mode, of ascertaining it, to which this description applies, which is not rightfully and completely within the scope and pro-

* Page 1. supra.

vince of Natural Theology. Every such
she claims; every such fact she will em
In no case ought such facts to be seized wi
great earnestness, and employed with so
satisfaction, as when it is perceived that they
tain by fair and direct induction some of
special and peculiar truths, which lie at the
of the gracious plan of Salvation through a
deemer*.

* Page 4. supra.

CHAP. IV.

ON CONCLUSIONS DEDUCIBLE FROM THE NATURE AND THE POSITION OF THE MINERAL CONTENTS OF THE EARTH.

When we examine the internal state of the earth, we find that to the lowest depth to which they have been perforated by human industry* they do not consist wholly of those materials which are usually discernible on the surface. Amidst layers of those materials, variously modified and combined, sometimes in a state of friability, more frequently indurated into stone, we discover veins and deposits of other substances, characterised by other and diversified properties. With these substances, and particularly with those among them which are of a metallic nature, and also with coal,

* The deepest mine in the world is said to be in Bohemia, and to have penetrated three thousand feet.—Townsend, p. 216. The deepest coal mine is reported to be at Namur, and to descend two thousand four hundred feet. Kirwan, p. 296.

considerations belonging to our subject are connected.

It has already appeared evident, from documents furnished by natural theology, that mankind are fallen by transgression from the condition in which they were created. Let imagination form to itself a picture of the state of being in which, fresh from their Maker's hand, innocent, and in full possession of His favour, they were originally stationed upon the earth. For the assistance of our conceptions, we are supplied with two models; one, delineated by the finger of God in the opening chapters of the book of Genesis; the other by the pen of man, in the representations given by poets of a golden age. In this argument, the Divine authority of the first of these descriptions is of course to be placed apart from contemplation. Form the picture on either pattern; form it on any consistent pattern, including unsullied innocence, and the complete possession of the favour of God, the Omnipotent, All-wise, Benignant, and Merciful God. When you have fashioned and refashioned it until it answers to your ideas; there will remain two questions, to which we may desire a reply.

In the first place; in what degree, according to our conceptions, could the mineral substances which have been specified be necessary or useful to men in such a state of innocence, happiness, and favour?

In any case not involving a palpable contradiction, it would be rash totally to deny unknown possibilities. It may be within the range of possibilities, and it might be within the appointments of the good pleasure of the Deity, that coal, and iron, and copper, and the other metals, should be made in some mode subservient to the benefit even of such beings. It does not, however, seem too much humbly to observe, that, according to the measure of human understanding, the necessity, or the important utility, of such substances to such beings is not easily, if at all, to be discerned. Were men dwelling in a Paradisiacal state, or amid the realisation of an age of gold, when neither corporeal need nor mental feeling would prompt a wish for clothing; when the grove, though shelter were superfluous, would ever be at hand with its grateful vicissitude of shade; when trees loaded with fruit, and herbs of grateful taste, were spreading their offerings

in spontaneous luxuriance to meet the first sensations of hunger or of thirst; when all was purity, and peace, and joy: on what obvious grounds could we rest the applicability and the importance of the substances under consideration?—These observations are sustained by their accordance with the Mosaic records; in which the application of the metals to the ordinary purposes of man is assigned to a period far subsequent to the expulsion of our first parents from Paradise. Among the inventors of early arts and modes of life, Tubal-cain, the sixth in regular descent from Cain, is described as the first *instructor of every artificer in brass* (*copper*) *and iron**.

But, in the second place, if it be assumed that the possession of coal, and of iron, and of the rest of the metals would be not only in a moderate degree desirable, but even of essential advantage, to man in the supposed condition of innocence and felicity, and in the consequent continuance of the favour of the gracious Father of Creation: is it possible to suppose that those

* Genesis, iv. 22.

substances would be placed in the situations in which they are now arranged, and under the circumstances and forms in which, at present, they are commonly enveloped?

To answer this question affirmatively appears beyond the possibilities of reason. Consider, that the beds of coal and the metallic veins are deeply stationed below the surface of the earth; that they are buried under strata of powerful resistance; that by the convulsions through which these strata have been disjoined and dislocated the accompanying coal and metal participate in every mode of confusion; and that by the combination of all these circumstances, they are rendered at once of doubtful discovery and of difficult access. Consider farther, that the metallic bodies, when discovered and obtained, are rarely in a state fitting them for the service of man. They offer themselves to him in masses of shapeless, rugged, stony, and intractable ore; and are to be subdued by the strongest discipline of fire and of labour ere they will submit to the forms, and manifest the qualities, which are indispensably necessary, before he can derive a particle of benefit from his acquisition. Is it conceivable that

men, innocent, happy in the full enjoyment of the paternal favour of God, men dwelling in an actual or a virtual Paradise, should be doomed by their Heavenly Father to seek the mineral production which we are supposing them to need, in such a situation, and to find it in such a state? Is it conceivable that they should be appointed to delve in subterranean darkness, amidst water and mire, amidst the suffocations of mephitic air, and the explosions of fire-damps? Is it conceivable that like the criminals of ancient Rome, or the enslaved Indians of Spanish America, they should be thus "*damnati ad metalla*," *condemned to the mines?* Is it conceivable, that when they had at length brought up their prize to the light of day, when they began to examine its aspect and its properties, they should discover it to be in a state wholly unprofitable; and that the toils of the furnace and of the forge, and of many subsidiary operations, were yet required to bring it into the shape, and the texture, and the temper, essential to practical usefulness? Assuredly we may without hesitation conclude, that, if to innocent and favoured man minerals were of importance, they would be provided for him by

Divine goodness in stations easy of detection and of access, and would be endued with the qualities necessary for his purpose.

Now reverse the view. Regard man through the medium of the light already supplied by Natural Theology, as a fallen creature; and every particular which has appeared strange, jarring, or impossible, when connected with the supposition of his innocence, takes its appropriate place, and displays its fitness and consistency, in relation to beings who have lost their original righteousness. If, for man in his present condition, there be a substance over which power is specially important; that substance is iron. It is the possession of iron which constitutes, humanly speaking, the difference between savage life and civil society. Its value is instantly discerned, even when the eye is but half opening, and the mind but half awakening, from the night and torpor of barbarism. When a ship, on a voyage of discovery, touches at a new island; what, among the productions of an unknown hemisphere laid before the wondering native, are speedily the objects of his most intense solicitude? A hatchet, an adze, a nail; a piece of broken iron, of which he knows

only that it is iron, and has not yet thought of a purpose to which it may be applied. But he knows that it is iron, and that is sufficient. In civilized life, the same metal which the Deity has mercifully provided in larger abundance than any or than all of the rest, maintains, under its varied states and capabilities, a decided pre-eminence in utility. For the conveniencies of common life, for the interchange of commerce, for the extension of science, other metallic and mineral contents of the earth are also of daily and hourly advantage. Scarcely is there one of these substances, for the reduction of which, in countries productive of coal, to its beneficial form or quality, that powerful agent is not called to lend its aid. The collocation of mineral substances, and the hardships and dangers attendant on mineral operations, find their explanation and their end among the penal consequences of original transgression.

It is not difficult to foresee a remark, which may perhaps, be made with a view to weaken the force, and to avert the bearing, of parts of the argument in the present chapter. It may be said that minerals were formed and deposited in the earth at the Creation; and consequently, be-

: there had been the opportunity of trans-
ssion on the part of man. Let such an ob-
tor receive thanks for a remark powerfully
roborating the argument which it was intend-
to overthrow. The fact alleged in the remark
ıpparently true. Kirwan affirms, that ores of
various metals are abundant in mountains
ich geologists term primeval, as being desti-
: of organic remains*. He also states, on
authority of Pallas, that coal-beds exist, and
hout the accompaniment of organic exuviæ,
the highest plains of Cobæa†. Independently
such authentic relations, it must be admitted,
t the component elements of ores and of coal,
ether combined or not into their existing
:es, were contained in the first formation of
globe. Were they, then, at that period,
nbined and placed as at present? If the re-
rker answers in the negative, he acknow-
ges that they have been subsequently chang-
into their existing condition: and thus co-
rates towards the establishment of the con-
sions which their existing condition has fur-

* P. 427, &c. † P. 26—29.

nished. If he prefers to reply affirmatively; what are the tendency and the effect of his assertions? Not in any respect to show, that, so far as we may presume to judge, the possession of the metals and of coal was requisite for innocent and favoured beings in a Paradisiacal abode. Not in any respect to lend the support of a possibility to the supposition, that these minerals, if assumed to have been of utility to such beings so stationed, would have been deposited as they now are. What are its tendency and its effect? Precisely those, which for the benefit of our argument we should specially desire. They are to show that the Deity, when placing mankind in a state of innocence upon the globe, devised and carried into execution, in its very structure and composition, provisions and prospective arrangements unadapted to the then existing state of men, but suited to the situation of men in the event of their falling from holiness, and from His favour; and that His Omniscience foresaw such a fall, and made preparations for it. Every token of such provision and prospective arrangement is, in itself, among the most decisive of

rguments, and adds powerful energy to
other concurrent train of reasoning, by
ı Natural Theology is led and enabled to
ver that man is in a fallen condition.

CHAP. V.

ON CERTAIN OTHER CIRCUMSTANCES CONNECTED WITH THE SURFACE OF THE EARTH.

When, in the discussion of any large topic of enquiry, some leading truths have been established by adequate and direct arguments; it frequently happens, that collateral facts and observations which present themselves so harmonize with those truths, that to disregard the indirect and analogical support thus offered would not only be unwise, but would be grossly to fail in doing justice to the subject. On this principle, I proceed to the consideration of some additional phenomena in the material world, which correspond with the conclusions already shown to be attainable by Natural Theology, and strengthen them by that correspondence.[1]

I believe that, on the largest computation, the collective area of the dry land on the globe does not greatly exceed one-third part of the whole superficies. The habitable space is much less

than this quantity. Immeasurable deductions are requisite for regions buried in polar snow, and for burning deserts consigned to desolation by naked rock, by moving sands, by irremediable drought, or by saline impregnations. Let it not be imagined, that I would imply that the interminable tracts, thus condemned to lonely barrenness, have not their appropriate office of usefulness in the Divine economy of nature. On a globe designed for the dwelling-place of man, such in character and condition as he now is, they are assuredly wise, benignant, and immediately or ultimately beneficial appointments. But I think that they are not appointments which we should anticipate, in representing to ourselves the probable state of a world, the inhabitants of which were continuing in the complete enjoyment of the favour of a gracious God. Had we been at liberty to suppose a Garden of Eden expanded into an abode for the united millions and hundreds of millions of such race; had we been desired to picture to ourselves an earth prepared for their residence, according to the model of a golden age; an age of which Virgil, allud-

ing to its hypothetical revival, thus expresses the prevalent idea—

"*Omnis feret omnia tellus:*"

our imagination would not have interspersed immense and insupportable vacuities of torrid wastes and perpetual frost.

The preceding reasoning may be extended to volcanoes. Were the world in a state of innocence, we should not expect it to be exposed to their ravages. As the force of the argument in this case will be in some measure proportioned to the degree in which the destructive effects of volcanoes have been experienced; and as the situation of our own country, far removed from contact with eruptions, contributes to prevent many persons from being aware how large is the number of known and active volcanoes on the earth; some information on that point seems necessary to be stated*.

* The instances for which specific authorities are not mentioned are collected principally from Townsend, p. 339—358: who also cites the authorities for his own facts.

In Europe are found Etna, Vesuvius, Hecla, Strombolo, Vulcano, Lipari; and Calamo, in the Egean Sea, with many other volcanic islands. Etna has been noticed from remote antiquity; and by authentic records it appears, that in twenty severe eruptions, it shook the whole of Europe. The first of these was five hundred years before the Christian era. What havock of human life and happiness must have ensued from such a succession of these fiery visitations! The ravages of Vesuvius have been memorable, ever since the overwhelming of Herculaneum and Pompeii. From A. D. 1000 to 1766, twenty-three eruptions of Hecla are specified; of which the last continued without intermission during five months. Iceland appears to consist almost entirely of volcanic matter. Sir George Mackenzie, in his recent publication respecting Iceland, relates, that, in the year 1783, an eruption of flame, accompanied with vast quantities of pumice-stone, arose from the sea thirty miles from Cape Reikianes, and continued four months. Dr. Clark notes, in his map of the Crimea, a volcano on the European side of the Cimmerian Bosphorus; and others, particularly that of Prekla, on the opposite coast.

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In Asia, Pallas notices a burning mountain, called Kargonsh Kongisch, in the Uralic chain, between the Volga and the Oby. In the chain that stretches down the length of Kamtschatka are twenty volcanoes, of which seven are particularly remarkable. Among these is Klutshefskoi, one of the most elevated peaks on the globe. Twenty miles from Cape Lopatka, Captain Billing, in 1793, passed a solitary mountain in the sea, whose summit was burning violently. Some of the loftiest summits of Japan emit continual flames. One of the Ladrone Islands, when M. De la Peyrouse sailed by it, was pouring down torrents of lava. The Philippine Islands, and also the Moluccas, abound in volcanoes. In 1693, half of the Island of Sorca, one of the Moluccas, was swallowed up; and a burning mountain sunk into a lake. Marsden states, that Sumatra has many volcanic mountains. One of them, now burning, is nearly twelve thousand five hundred feet in altitude. In Java, a range of volcanic mountains, from five thousand to twelve thousand feet in altitude, many of them still subject to eruptions, stretch through the whole length of the island. Of these, Papandayang

was heretofore the largest volcano: but in August, 1772, after a short but very severe eruption, the chief part of the mountain fell inwards, and was swallowed up in the earth, according to the recent statement of the late governor of Java, Sir T. S. Raffles*, to an extent of fifteen miles in length, and six in breadth. Forty villages were destroyed; and two thousand nine hundred and fifty-seven inhabitants perished. The same author states, that the most extraordinary eruptions of Vesuvius and of Etna cannot bear any comparison in point of duration and of violence, with the eruption of Tomboro, in the Island of Sumbawa, in April, 1815. All the Moluccas, Java, and a considerable portion of Celebes, Sumatra, and Borneo, to the distance of a thousand miles from the mountain, felt tremulous motions, and heard the report of explosions. In Java, at the distance of three hundred geographical miles, the eruption seemed to be awfully present; and by its clouds of ashes produced utter darkness. About twelve thous-

* History of Java, by Sir T. S. Raffles, London, 1817. Vol. 1. p. 11—17.

and inhabitants of Sumbawa were destroyed*. There are volcanoes in Celebes, Chiaus, and Amboyna, and in the Banda Islands. Clavigero mentions a volcano in Ternate, of dimensions equal to Etna. Dampier saw two islands with burning mountains near Timor. Adam's Peak, in Ceylon, is volcanic. A volcanic mountain has also been observed on a barren island eastward of the Andaman Islands, in the Bay of Bengal.

Of Africa our knowledge is far more imperfect. At the mouth of the Red Sea, Bruce saw two volcanic islands, one of which was emitting smoke. In the Isle of Bourbon is a mountain nine thousand six hundred feet above the sea, which is always visibly burning, and is frequently in a state of active eruption. Lord Macartney saw, in 1793, a volcano in the Isle of Amsterdam, sending forth flames from six craters. Among the cape de Verd Islands, Fuego has a noted volcano; among the Azores, Fayal; among the Canaries, Palma and Hiera: and

* History of Java, by Sir T. S. Raffles, London, 1817. Vol. 1. p. 25—29.

pre-eminently Teneriffe, by whose violence, in 1704, whole towns were destroyed.

In America, to begin the survey from the South, Terra del Fuego, (the Land of Fire,) by its denomination sufficiently indicates its nature. In the Cordilleras of Chili, exclusively of mountains which discharge smoke at intervals, there are fourteen volcanoes which are in a constant state of eruption, besides two lying westward of the Andes. Of the latter, one near Villa Rica may be seen perpetually burning from the distance of one hundred and fifty miles. The greatest eruption ever known in Chili was from Peteroa, December, 3, 1760, when a new crater was formed, and a neighbouring mountain was rent asunder for many miles*. On the coast opposite to the Isle of Chiloe, is a burning mountain. Peru has suffered tremendously from volcanic fires. At the time of the destruction of Lima, in October, 1746, an event to be more particularly noticed hereafter, a volcano broke out at Lucanias; and three others in the

* Molina's History of Chili translated, &c. London, 1809. Vol. i. p. 24—25.

mountains of Patas discharged such torrents of water, that the whole country was overflowed*. Near Quito, rises Pichincha, to the altitude of nearly sixteen thousand feet. This volcano caused, on one occasion, the destruction of thirty-five thousand inhabitants of that province. Cotopaxi, whose elevation reaches nineteen thousand three hundred feet, has, on its summit, a volcano, which broke out, A. D. 1533, and renewed its ravages in 1743. Between Cotopaxi and the Pacific, Humboldt enumerates forty volcanoes constantly burning. Many of the principal summits of the Andes are volcanoes; and among them the loftiest, Chimborazo, elevated twenty one thousand four hundred and forty feet above the sea. Dr. Michel describes the Andes as a chain of volcanoes five thousand miles in length. Advancing to North America, we find Montserrat, Guadaloupe, and others of the West Indian islands, with actual or extinct volcanoes. In Mexico, Dampier specifies seventeen; of which Guatimala has twice destroyed

* Ulloa's Voyage Historique de l'Amerique Meridionale. Vol. 1. p. 468.

the city bearing the same appellation*. Clavigero names five more†. Humboldt states, that the five chief volcanoes stretch from East to West across the country, between Colima and Orizaba, from the Pacific Ocean to the Gulf of Mexico. Juruyo was only a small hill until the year 1760, when, on September 29, it burst with a furious explosion, and destroyed the neighbouring village; and since that time has continued to emit fire and burning rocks, by which it has formed three high mountains nearly six miles in circumference. The ashes at the eruption were driven as far as the city of Queretaro, a distance of one hundred and fifty miles. Higher up the Western coast to the North in in lat. 55° volcanoes were observed by La Peyrouse, Cook, and Humboldt, successively. The latter traveller mentions seven. In lat. 60°, Vancouver discovered others. Among the

* In one at least of the two instances. July 29, 1773, the destruction of this great city was partly effected by accompanying earthquakes. See Clavigero's History of Mexico, translated by Cullen, 2d Ed. London, 1807. vol. 1. p. 14.—Note.

† Ibid.

twelve Aleutian Islands, seven have occasional eruptions. Owhyhee, one of the Sandwich Islands, has a volcano on its highest peak, more than sixteen thousand feet above the sea. Toofea, in the Society Islands, is always burning. Near the northern Hebrides is the volcano of Tanna. On the coast of New Guinea, Dampier discovered five islands with mountains pouring forth fire and lava: and an island of the same character on the coast of New Britain, was remarked by Labillardiere.

In our endeavours to form a tolerably adequate conception of the amount of volcanic devastations, we must comprise within our estimate those extensive portions of the earth which bear the marks of eruptive fire, though the craters whence the flames issued no longer burn. The islands of Ascension and St. Helena, many isles in the West Indies, others in the Pacific Ocean, others in the European Archipelago, others in the Eastern seas of Asia, are confessedly the work of volcanoes. And the sub-marine eruptions which raised them may, at the same time, have effected the subversion of islands, or of tracts of continent, previously existing and inhabited. The Table Mountain, at the Cape of

Good Hope, is volcanic. So is a large district stretching along the German side of the Rhine, and described from personal investigation by De Luc*. From different parts of the world examples might be accumulated almost without limit. In the materials of which such regions are composed, we read the records of sorrow and destruction; records not obliterated by the verdure, and the flowers, and the fruits, and the flocks and the herds, with which the now quiescent vaults may be overspread. Though Etna and Tomboro should rage no more, the aggregate of their former havock will be unchanged. The fields of Austerlitz and of Waterloo may be smiling with grain: but the carnage with which they were reddened is not diminished.

Earthquakes, which on some occasions are manifestly connected with volcanic fires, may originate, on others, from independent causes. From whatever source they originate, they are visitations which, though fully accordant with the condition of a world lying under the penalty

* Lettres Physiques et Morales, tom. iii. p. 501, to the end of the volume. Passim, tom. iv. 146—546. Many of the Letters are occupied by the subject.

of transgression, would not be, we might presume, let loose upon a race of beings innocent and completely retaining the favour of their God.

Death, in its simple character, is not necessarily a proof that the beings on whom it attaches, have offended their Creator. Existence bestowed might be intended by the donor to be but temporary. And happy existence, even for a limited duration, would be a gratuitous gift, to be enjoyed and acknowledged with thankfulness by percipient intelligences. Moreover, existence might be prolonged after death; and the stroke which seemed to involve the annihilation of the individual, might be the instrument of his removal into another scene, and a more exalted modification of life. But death, sudden, widely-spreading, supervening in an unknown and a horrid form, bears the aspect, not of a placid dismission from existence; not of a gracious transplantation into another and a nobler province of the universal empire of the Almighty; but of the execution of judicial sentence upon a race of transgressors. When the disciples of our Saviour showed themselves dis-

posed to infer that the eighteen on whom the tower in Siloam fell, and the Galileans whose blood Pilate had mingled with their sacrifices, must have been sinners above the rest of their countrymen; the feeling, though in its application unauthorised and erroneous, was in its principle natural and reasonable. It did not become the disciples to institute needless and fruitless comparisons between the supposed guilt of the dead and of the living. The catastrophe which had taken place did not of necessity imply that the dead had been more sinful than their countrymen in general, or than the very disciples: but it did at least imply that the dead belonged to a race lying under the penalty of sin. If men had not forfeited by departure from holiness the primeval favour of a God of Love; the eighteen would not have been overwhelmed by the falling tower, nor would the blood of the sacrificing Galileans have flowed in a blended stream with that of the victims.

Think of the tremendous destruction which has been so frequently wrought by earthquakes; and apply the considerations which have been stated. To permit our imaginations to suppose

that the thousands and the tens of thousands who have been engulphed by earthquakes were sinners, collectively or individually, above others, or above ourselves, would be impious presumption. But to behold in such fearful visitations evidences of the anger of God, and of the penal inflictions of His hand upon a world of transgressors; to behold in these visitations auxiliary testimony that the existing world is a world of transgressors; is natural, is consistent with reason, is a just conclusion of Natural Theology. Nay, so plainly is the conclusion rational, that in the volume of Revelation itself, and when earthquakes formed, as now, a part of the ordinary dispensations of Providence, the argument, as addressed to natural reason, is most awfully applied and illustrated in the miraculous judgment on Korah and his associates in rebellion. "If these men die the common death of all men, or if they be visited after the visitation of all men: then the Lord hath not sent me. But if the Lord make a *new thing, and the earth open her mouth and swallow them up*, with all that appertain to them, and they go down quick into the pit: *then ye shall understand that these*

nen have provoked the Lord." The voice of the earthquake proclaims to the pupil of Natural Theology; "Man has provoked the Lord."

For confirmation of the antecedent reasoning, it is fitting to subjoin some examples, selected partly from ancient times, partly from more recent periods, of the havoc of human life and happiness, which in various parts of the globe has been wrought by earthquakes.

In the year 469, before Christ, a violent earthquake at Sparta destroyed more than twenty thousand Lacedæmonians; a calamity, says Diodorus, inflicted as by some angry deity exacting punishment. Forty-three years afterwards similar concussions were general in Greece; and produced marine inundations which overwhelmed various cities on the coast, and breaking through a peninsula of Locris, formed it into an island*.

Josephus mentions an earthquake of unprecedented violence in Judea, by which ten thousand persons perished under the ruins of their houses.

* Diod. Sic. lib. xi. Olymp. lxxvii. 4. Lib. xii. Olymp. lxxxviii. 3.

It occurred in the seventh year of the reign of Herod, and at the time of the battle of Actium*.

About twenty years after the death of Christ, the Syrian city of Apamea was so injured by an earthquake, that the Emperor Claudius remitted the tribute for five years†.

Perhaps the most tremendous of ancient earthquakes upon record is that which Pliny describes as swallowing twelve cities in Asia Minor‡.

Suetonius relates of Vespasian, that he restored many cities throughout the whole Roman empire, which had been the prey of earthquakes or of conflagrations§.

Antioch has been pre-eminent in sufferings. Having been buried with a large tract of adjacent country by an earthquake in the reign of Trajan, it was destroyed by another, in the time of Justinian, with the loss of forty thousand inhabitants; and again with the loss of three-score thousand, about sixty years afterwards‖.

* Antiq. Jud. Lib. xv. c. 5.

† Josephus B. J. II. xiii. 5. ‡ Pliny, L. ii. c. 86.

§ The words are remakable. Plurimas per totum orbem civitates terræ motu aut incendio afflictas restituit in melius. Suet. in Vesp. vi. 17.

‖ Goldsmith's History of the Earth, vol. i. p. 69.

Gibbon, having referred to preceding earthquakes which had subverted the cities of Palestine and Bithynia, relates, "that on July 21, A. D. 365, the greatest part of the Roman world was shaken by a violent and destructive earthquake. The ocean was irresistibly impelled on the coasts of Sicily, Dalmatia, Greece, and Egypt; and swept from the single city of Alexandria fifty thousand inhabitants*." The reign of Justinian in the sixth century, is memorable for the convulsion of the whole empire by earthquakes. At Antioch alone two hundred and fifty thousand persons are said to have perished in the earthquake of May 20, A. D. 526. On July 9, A. D. 551, the city of Berytus, with its schools and its university, was overthrown†.

From D'Herbelot we learn, that A. D. 866, by an earthquake, general throughout Asia, the city of Tauris was nearly destroyed; and that in the year 1055, it was again overwhelmed by a similar visitation, and with the destruction of forty thousand of its inhabitants‡.

* Gibbon's Decline, &c. 4to, ii. 561, 562.

† Gibbon's Decline, &c. vol. iv. p. 325, 326.

‡ Biblioth. Orient. Art. Tabriz.

In A. D. 1182, most of the cities of Syria and of Palestine were overthrown*.

But some examples from modern times will be the most impressive.

Kircher states, that in the year 1638, the city of St. Euphamia, in Calabria, sank into the earth; and left its site occupied by a spacious lake†.

The West Indian islands are exposed to frequent earthquakes. In the forenoon of June 7, 1692, within the compass of two minutes, nine-tenths of the town of Port-Royal in Jamaica were shaken down, and buried by the subsiding of the earth and the irruption of the sea, with the destruction of two thousand individuals. Had the shock taken place in the night, few of the inhabitants could have escaped. Throughout the whole island, scarcely a planter's house or a sugar-work was left standing‡.

In January 1693, an earthquake, stupendous in its violence, and most dreadful in its effects, desolated Sicily. Catania and many other cities, were completely demolished. The horrors of

* Goldsmith, vol. i. p. 69. † Townsend, p. 359.

‡ See Sir Hans Sloane's account in the Philos. Trans. abridged, London, 1809, vol. iii. p. 624—631.

the catastrophe are detailed in the Philosophical Transactions*; where a catalogue is given of fifty-four cities and towns which suffered particularly, and of the destruction of human life in each. Out of two hundred and fifty-four thousand, nine hundred and thirty-six inhabitants, fifty-nine thousand nine hundred and sixty-three are stated to have perished.

Clavigero affirms, that the same earthquake which was felt in Canada, A. D. 1063, overwhelmed a chain of mountains extending above three hundred miles in length, and left their place an entire plain†.

The lower part of Peru is subject to continual agitations. On October 20, 1687, Lima was destroyed by an earthquake, and the fort of Callao by an accompanying inundation of the sea. An eye-witness, writing soon after the event, states, that five thousand dead bodies had been found, and that others were discovered daily‡. On October 28, 1746, Lima was almost instan-

* Lowthorp's abridgment of the Philosoph. Trans. 4th ed. vol. ii. p. 400—409.

† Hist. Mex. vol. ii. p. 221.

‡ Phil. Trans. abridged, vol. iii. p. 625.

taneously destroyed again in the same manner, with the known loss of one thousand three hundred inhabitants, and Callao also, where three thousand eight hundred inhabitants perished; and many ships in the harbour were lost. Other cities and seaports of Peru shared equally in the calamity*.

In 1751, during an earthquake in Chili, the city of Conception was swallowed up; and all the fortresses and villages on the coast, between lat. 30° and lat. 40°, were levelled with the ground. In consequence of signs which gave notice of the danger, the loss of lives was small†.

Lisbon suffered severely by an earthquake, in the year 1531. But on November 1, 1755, a single shock threw down, in the course of a few seconds, every church, convent, and large building, in the city, with about one-fourth of the dwelling houses. It was a holyday, and the churches were crowded. The number of persons destroyed is stated, on a moderate computation, at thirty thousand. Another account

* Ulloa, vol. i. p. 468.

† Molina's Chili, vol. i. p. 27. Note.

from an English eye-witness carries the number to sixty thousand. A conflagration instantly ensued, which in three days reduced the remainder of the city to a heap of cinders. The shock agitated the whole kingdom of Portugal, particularly the sea-coast; and Faro, St. Ube's, and other large towns, are represented as having suffered equally with the capital*.

On May 22d, 1782, the island of Formosa, in the Pacific ocean, was nearly overwhelmed, by an immense inundation of the sea, attributed to an earthquake. Numerous buildings, public and private, were demolished. Of twenty-seven ships of war in the harbour, twelve disappeared; two were dashed to pieces, and ten shattered, and fourscore other vessels were swallowed up. Corresponding destruction took place among the shipping which had not entered the harbour†.

In the years 1638 and 1659, the two provinces of Calabria were almost utterly destroyed by

* Phil. Trans. abridged, London, 1809, vol. x. p. 556, &c.

† Grossier's General Description of China, translated, &c., London, 1788. vol. i. p. 222.

earthquakes*. In the year 1783, by a succession of earthquakes, from February 5, to March 28, inclusive, they were again laid waste; and Sicily was involved in the calamity. Sir William Hamilton relates, that in the part of Calabria comprehended between lat. 38° and 39° the face of the earth was entirely altered. Deep openings and chasms were formed in the plains. Some hills were lowered, others wholly levelled. Profound valleys were filled up by dislocated mountains. A tract of land a mile in length, and half a mile in breadth, situated in a flat valley, was transplanted to the distance of a mile, and left, with a cottage and large mulberry trees and olives still standing. From the city of Amantea, on the Tyrrene sea, to Cape Spartivento, and thence to Cape d'Alice on the Ionian sea, every village and town, to the number of nearly four hundred, without including villages with fewer than a hundred inhabitants, was damaged or totally destroyed. The heaviest loss of life was in the towns and plains on the western side of the mountains

* See the letters of Count Francesco Ippolito, to Sir William Hamilton, in Dodsley's Annual Register for 1783, p. 58.

Dejo, Sacro, and Caulone. At Casal Nuovo, the Princess Gerace, and upwards of four thousand of the inhabitants, perished. At Bagnara, the number of dead amounted to three thousand and seventeen. Radicina lost about three thousand: Palmi as many: Terra Nuova, about fourteen hundred: Seminari, still more. In the official returns to the Secretary of State at Naples, the number of persons specified as having been destroyed in the two Calabrias and in Sicily, by the earthquakes only, was thirty-two thousand three hundred and sixty-seven. But Sir William Hamilton adds, that he had sufficient reason to believe the whole number of persons destroyed, inclusive of strangers, to amount to forty thousand*.

On October 21st, 1766, the city of Cumana was entirely destroyed by an earthquake. The whole number of the houses was overturned in the space of a few minutes; and the shocks were hourly repeated during fourteen months. On

* Sir William Hamilton's Letter to the Royal Society of London, dated May 23d, 1783. Dodsley's Annual Register for 1783, p. 49, &c.

December 14, 1797, more than four fifths city was again destroyed by a similar visita About the same period a very dreadful earth overthrew the towns of Riobomba, Hambat Tacunga, in the kingdom of Quito†. On M 26, 1812, the city of Carraccas in South rica was almost instantaneously laid in rui an earthquake; and the loss of lives was es ted at five thousand. By the same earth La Guayra also was overthrown, and numb its inhabitants were killed, and other town fered greatly‡.

In the year 1810, the city of Havannah tained great damage from a hurricane, foll by an earthquake. And even while I am w these pages, I read in the public prints th

* Humboldt's Travels, &c. translated by H. M liams, London, 1814, vol. ii. p. 216, 217.

† Ibid. p. 235.

‡ Ibid. p. 233. See also Annual Register, Chronicle, p. 40. In No. IV. of the Journal of S and the Arts, edited at the Royal Institution, an ac is given (p. 400.) of this earthquake, and its very sive and tremendous effects, by an eye-witness, M. cio Faxar. He computes that nearly twenty tho persons perished in Venezuela.

following accounts; that a recent and severe earthquake had occurred between Tobasco and the South sea; by which, as it is stated, land thirty leagues in extent had been sunk, the whole face of the country torn up, the river Tobasco, and also the St. Francis covered with floating trees, and an Indian village swallowed with all its inhabitants*: and that the town of Votissa, near Athens, has been inundated by a sudden rising of the sea during a violent earthquake, and that about five thousand of the inhabitants perished in the flood†.

I am aware of only one objection, which might seem to furnish grounds for escaping the conclusion, that the appointed or permitted ravages of volcanoes and earthquakes on human life and happiness are indications that man is in a state of transgression, and has lost the original favour of his Creator. It may be alleged, that the reasoning, if valid, would equally apply to the animal world; that if the destruction of men by the flames of the volcano, or by the jaws of the earth-

* The Day and New Times, June 18, 1817, quoting from a New York newspaper.

† The Star, Jan. 14, 1818.

quake, proves the human race to be transgressors, and under a penal dispensation, the accompanying destruction of animals by the same catastrophe must establish the same inference respecting them also; and that the absurdity and the impossibility of the latter inference evince the futility of the former. In no degree. For animals are incapable of moral agency; and, consequently, are not placed under moral responsibility. There is an end, therefore, to all pleas of analogy between the two cases. Why then, resumes the objector, were the animals consumed or engulfed? They suffered as belonging to a world, in the present system of whose administration suffering is an ingredient; and under the general effect of the laws which produced the particular eruption or the particular earthquake. They suffered, as under human governments individuals are frequently involved in the participation of national calamity, to the introduction of which they had not knowingly contributed; or lose their lives and their property by a conflagration which broke forth without their fault or their consciousness in the house of a neighbour. Human governments, it may perhaps be replied, have not the power, neither in

public troubles, nor in local distresses, of effecting discriminations and exemptions: but the Deity has the power. Do you then contend, that a system comprehending a frequency of miraculous interpositions on the part of the Deity should take place on behalf of the brute creation: should take place too, while no such interposition is employed on behalf of the human race to discriminate between the more and the less guilty of men? With equal reason might you require that the brute creation shall in no instance suffer by connection with man; that a miracle should always preserve a horse from being wounded in battle, and an ox from being lamed at the plough.—Your reasoning, however, the objector answers, leaves the Deity open to the imputation of unkindness, and even of injustice, towards the animals, his creatures. No. God can compensate for any suffering. Then animals are to live in a future state of existence. An inference altogether unnecessary. God can in any case give compensation, superabundant compensation, antecedently to the suffering which it is to counterbalance. Will you take upon yourself to affirm that an animal whose sufferings you are contemplating,

may not already have enjoyed in the course of its existence a mass of satisfaction more than equivalent to the aggregate of the pain which it has hitherto endured, and of that which may yet await it? A post-horse is a familiar instance of animal wretchedness. You survey, in its seasons of pressure, its toils and its stripes under the impatience of a cruel driver, and the, perhaps, equally or more cruel traveller. But forget not, that it does not find the whole year a general election. Forget not that, in its most distressing periods, it has necessarily some alleviating gratifications in ordinary food and repose. Forget not that it has, at less busy seasons, its longer intervals of gentle employment, or of positive freedom from labour. Forget not that during several continued years from its birth it knew not the lash nor the burthen; and enjoyed, nearly without interruption, the comforts and the happiness allotted to its sphere and mode of existence. To vindicate the justice and the benignity of God towards any one of His creatures, this fact alone can be requisite; that the being of that creature, whenever or in whatever manner terminated, shall have been to it on the whole a blessing.

CHAP. VI.

THE GENERAL NATURE OF THE OBJECTS PROVIDED ON THE SURFACE OF THE EARTH, OR WITHIN THE REACH OF ATTAINMENT, FOR THE USE OF MAN.

IF the consideration of some of those parts of creation, animate or inanimate, with which men are principally conversant for purposes essential to the welfare and the comfort of the human species, shall indicate those objects to be, so far as we are competent to the enquiry, *specially* suited to the condition of fallen beings; that is to say, far more adapted to their condition, far more requisite to it, than we can discern them to be important to the supposed state of a holy race, in the full enjoyment of the Divine favour: the conclusions maintained in the preceding chapters, will thus acquire additional confirmation. This confirmation, if to be furnished, is evidently to be expected, rather in a concurrent result from a number of examples, each supplying its accordant and proportionate share of testimony, than from decisive force in any single instance.

Man, in his present state, cannot exist at all, or cannot emerge above the half-existence of uncultivated barbarism, not even in the temperate regions of the globe, much less in more trying latitudes, without a variety of external accommodations and instrumental aids, which, had he remained innocent, he would not have found either necessary or desirable. He stands in need of clothing; of structures for substantial shelter; of numerous and diversified articles of domestic convenience; of food more powerfully nutritious than grain and fruits. He stands in need of the assistance of strength superior to his own, and to be found only in the animal tribes. Then come the demands of advancing civilization for the purposes of manufactures, of commerce, of public works, of national defence, of navigation, of all the departments of the arts and the sciences. I include arts and sciences in this catalogue. For although the culture of the mental faculties, and the progressive enlargement of knowledge, occupations of which assuredly the latter, perhaps the former also, is among the felicities of angels, might well be assumed as largely contributing to constitute the mass of duties and

the mass of happiness in a perfectly holy state upon earth; yet in general the mechanical helps and processes, by the instrumentality of which those objects are either necessarily to be pursued by men in their present state, or are most essentially promoted, could not find a place in a world of unsullied purity*. Consider then in how ample a manner, and with what accuracy of adaptation to these several necessities, the supply of materials has been previously formed by the Creator; dispersed by him over every habitable part of the globe; modified and varied by Him, according to the separate exigencies of every clime. These materials, be it unequivocally admitted, were provided while man was yet innocent; or rather, before man was created. But the provision, before man had sinned, before man existed, of materials specially suited to a state subsequent to sin, and consequent upon sin, is at least as impressive as to the anticipated event of transgression, is at least as characteristic of a design on the part of the Creator merci-

* See Chapter iv. Additional observations connected with this subject will appear in a future chapter.

fully to alleviate merited punishment, and to excite a hope that forbearance might ultimately enlarge itself even into some dispensation of grace, as if the provision had been first introduced after the time when the penalty was incurred. When the mind reflects on the number of articles which in the present argument the term *materials* includes; on their fitness for the requisite ends, on their appropriate variety, and on their universality; what scope for admiration and for gratitude! A just view of the subject may perhaps be rendered the more clear, and the more forcible, if we consider how easily, so to speak, the case might have been decidedly different, or even reversed, in most or in all of these particulars, without injury to the visible economy of nature, without impediment, in our apprehension, to any of the manifested designs of the Deity, that of benefit to sinful man excepted: and what would have been the condition of men, had an offended God decided on a contrary arrangement. Plants and herbs might have been as efficacious as at present for the nutriment of the animal world; might have been as acceptable to the taste of every quadruped,

ıd bird, and insect, which feeds upon them; if ɔt one species among the verdant multitude ıd possessed the fibrous and tenacious texture apable of being converted into human clothing. The forest might have overshadowed the hills vith its magnificence, might have protected from he sun and from the storm and from the frost ll the beasts of the earth, and all the fowls of he air; though every tree within its immeasurble precincts had been too hard to be wrought nto a structure for the shelter of man, or too erishable to repay the trouble of fabrication. Of masses of stones there might have been none; r none suitable or attainable for a wall. All might ave been crumbling or shattery like chalk, or mpenetrable as cast iron; none might have been issile into slates for a roof; none capable of beng converted by fire into the basis of a cement. Wood might have been in every instance, as is ow the fact in some families of trees, wholly nfit for the purposes of fuel; or, though proper or combustion, might have been, through its veight or its fragibility, or its continual and ireclaimable tortuosity, useless for navigation. Quadrupeds might have enlivened, as now, the

face of the earth, and have enjoyed undiminished happiness in their sphere of being; though their skin, refusing to supply wool or leather to man, had been slimy like the covering of the snail, or horny as the armour of the rhinoceros. They would not have been less graceful, or less agile, or less joyous; had their flesh been universally unadapted for his food, or abominable to his palate. Where but to the eye of man would have been the chasm or the loss in creation, if the dog had not existed; if the place of that docile and faithful ally had been occupied by an animal, unsusceptible of attachment to a human associate, or incapable of guarding his dwelling, or of co-operating in the protection and the superintendence of his flocks? Where would have been the sorrow, except in the breast of man, had the camel, and the dromedary, and the elephant, and the lama, and the horse, and the ox, been invested with propensities, or constructed with such changes of bodily conformation, as had disqualified them for the office of labouring in his service, or rendered them intractable under his efforts to bend them to his yoke? I have alluded to conceivable changes in the propensities-

th which it has pleased a Deity, compassion-
: toward an offending race, to endow the ani-
als specially fit for the occupations of men.
ow small a change might have at once anni-
lated their usefulness! Suppose for instance,
at the horse, with all his present capacities of
rving mankind, were carnivorous. He would
stantly become not merely a terror to his mas-
r, but a servant not to be sustained, except at
ı expence never to be compensated by his la-
our. Observe that the elephant, the camel, and
l the large domesticated animals, feed only on
egetable productions. It is not that man has
elected for domestication animals which subsist
n herbs, and leaves, and grain: but it is that
ıe animals, which are framed with the powers
nd the qualities pre-eminently fitting them for
he service of man, are also appointed by Provi-
ence to be sustained entirely by the vegetable
orld. The qualities and the propensities are
nited, the powers and the habits are incorpo-
ated, by the gracious Creator; who determined
hat man should be benefited by the aid of ani-
nal strength and docility, and formed certain
pecies of animals for the purpose of supplying

man with that aid. The metals, and also
the main instrument by which in this cou
they are reduced to a beneficial state, migh
pointedly noticed in conjunction with the
sent subject, had not these mineral substa
been already brought forward, and amply tre
in a sufficiently analogous connection.

The degree of limitation within which it
seemed good to the Deity to circumscribe
bounty, when providing certain species of
mals and other productions or contents of
earth as particularly important for the relief
human necessities, powerfully supports our
gument. The number of the kinds of anin
and of plants, to which this description belo
is not exuberantly copious. In an imagin
world prepared for beings assumed to be
empted from moral trials, or to be contempl
by infinite foreknowledge as stedfast in ob
ence, exuberance might have been anticipate
a probable characteristic. But, in our own wo
the number, though sufficient for its purpose
comprised in a narrow compass. How large a
tion, for example, of the sustenance of man
sists of milk, under different forms of emp

ing it! From the temperate zones, and from the habitable parts of the colder regions, take away the cow: and what remains to be substituted? The very inferior aid of the sheep and the goat. Take them away; and nearly every thing, or every thing, is gone. From torrid climates, take away the camel; and you leave them equally at a loss as to a prime article of nutriment. Then with respect to the speedy conveyance of man from place to place, and the commodious transportation of his burthens. From one clime, remove the horse; from another the camel and the dromedary; from another the lama; from another the elephant: and in what state, as to these points, do you leave the inhabitants? Then, with regard to clothing. From tropical lands, withdraw cotton; from countries exterior to the ecliptic, subduct hemp and flax: and where are the general materials for garments? According to a kindred analogy, though there is one species of earth, generally to be found, which, when spontaneously hardened into stone, may be burned into a fit ingredient for mortar; there is one species only. Again, were the oak non-existent; how would Britain construct the hulls

of her navies? Remove the fir and the kindred larch; and how would she supply the hulls with masts? Again, were iron absent, labour, and art, and science would be paralysed by the total want of tools and implements; and the business of the manufactory, and the enterprises of commerce would be at an end. In all these instances, and in others which might be adduced, the supply granted to man by his Creator is not a mere prison allowance, scantily sustaining life, and barely meeting the demands of ordinary necessities. Neither is it the luxuriant profusion natural, if so we may presume to speak, to the hand of perfect yet unoffended beneficence. It is a supply bearing the character of a grant to sinners from a God of mercy and of wisdom: a supply by mercy made so ample, as not only to relieve wants, but to superadd moderate comforts and enjoyments; by wisdom so limited, as to render man sensible how important is the blessing, and how unworthy is the being on whom it is bestowed.

CHAP. VII.

CIRCUMSTANCES CONNECTED WITH THE STRUCTURE AND THE NATURE OF THE HUMAN FRAME.

ORGET for a few moments the special condi-
n of man; and imagine yourself listening to
ormation conveyed to you, in what mode or
what agency is immaterial, concerning the
abitants of a planet in the unseen regions of
ce. Suppose yourself to be told, that they
re created holy; that they speedily fell from
edience; that God, amidst his just indigna-
n against the offending race, had been pleased
think upon mercy; and that their bodily con-
mation, while apparently it would not be
ted to the circumstances of their present abode,
l they remained innocent, bears the stamp of
gular accordance both with the nature of their
ginal state, and with the purposes of their
ntinued existence. If you are then desired
picture to your mind a corporeal structure,
ich, in its general properties, might corres-

pond with that description; can you devise any so opposite as your own?

Consider the human frame, naked against the elements, instantly susceptible of every external impression; relatively weak, unarmed; during infancy totally helpless; helpless again in old age; occupying a long period in its progress of growth to its destined size and strength; ungifted with swiftness to escape the wild beast of the forest; incapable, when overtaken, of resisting him; requiring daily supplies of food, and of beverage, not merely that sense may not be ungratified, not merely that vigour may not decline, but that closely impending destruction may be delayed. For what state does such a frame appear characteristically fitted? For what state does it appear to have been originally designed? For a state of innocence and security; for a paradisiacal state; for a state in which all elements were genial, all external impressions innoxious; a state in which relative strength was unimportant, arms were needless; in which to be helpless was not to be insecure; in which the wild beast of the forest did not exist, or existed without hostility to man; a state in which food

and beverage were either not precarious, or not habitually and speedily indispensable. Represent to yourself man as innocent, and in consequent possession of the unclouded favour of his God; and then consider whether it be probable, that a frame thus adapted to a paradisiacal state, thus designated by characteristical indications as originally formed for a paradisiacal state, would have been selected for the world in which we live. Turn to the contrary representation, a representation the accuracy of which we have already seen the pupil of natural theology constrained, by other irresistible testimonies which she has produced, to allow: regard man as having forfeited by transgression the Divine favour, and as placed by his God, with a view to ultimate possibilities of mercy and restoration, in a situation which, amidst tokens and means of grace, is at present to partake of a penal character. For such a situation; for residence on the existing earth as the appointed scene of discipline at once merciful, moral, and penal; what frame could be more wisely calculated? What frame could be more happily adjusted to receive, and to convey, and to aid, and to con-

tinue, the impressions, which, if mercy and restoration are to be attained, must antecedently be wrought into the mind? Is not such a frame, in such a world, a living and a faithful witness, a constant and an energetic remembrancer, to natural reason, that man was created holy; that he fell from obedience; that his existence was continued for purposes of mercy and restoration; that he is placed in his earthly abode under a dispensation bearing the combined marks of attainable grace, and of penal discipline? Is not such a frame, in such a world, a preparation for the reception, and a collateral evidence to the truth, of Christianity?

Consider, farther, the general amount and condition of human health. In amount it is collectively adequate to the necessities of terrestrial existence. This circumstance simply proves that, so far as health is concerned, man is fitted for his situation. Viewed by itself, it indicates not the cause of that situation. It neither proves nor intimates whether the existing nature of the situation was the original appointment of the Creator, or a subsequent result of human conduct. It is a circumstance, however, which,

ay the least, does not militate against our ument. On the contrary, it entirely accords h the supposition, that man is under a dis- sation partly merciful. But in contemplating nan health, for the sake of the inferences ich it may furnish, the sufficiency of its gross ount to the urgencies of earthly occupations ı fact commensurate only with a part of the ject. From other parts may there not flow ıclusions most relevant to the enquiries of ural theology, most important in their bear- s upon her investigations? Recollect then, t there are numbers to whom the blessing of orous health is, by the wisdom of God, de- d; is denied perhaps from infancy to the ve. Recollect the precariousness of health in ırself, in every man. It may vanish with the v of the approaching morn. It is a vapour ich passeth away. Recollect the multitude, inexhaustible variety, of diseases. Consider ys and nights of weariness and pain. Con- er the sickening languor, the overwhelming ility, and recurrent pangs, the corroding tor- é, the burning agonies, by which health is as- led, enervated, destroyed. Are you not re-

cognizing, in these inflictions, the character of a partly penal dispensation? They prove by their extent, by their duration, and by their violence, that they are not merely cautionary admonitions, but chastisements; that they are not gentle hints to innocent beings, calling them to attend to the preservation of health, lest they should negligently fail to enjoy the full measure of the delights which the hand of an unoffended God might pour forth; but that they are judgments on a race of transgressors.

There is one particular circumstance, so closely connected with the human constitution, so remarkable in itself, so feebly sustained by analogy in the animal creation; that I know not in what manner it could be explained by natural theology, except by assigning to it that penal character, which is unequivocally affixed to it by the Scriptures. The reader anticipates, that I have in view the agony of child-birth; a dispensation combining in each instance of increase in the human species the severity of pain with the peril of life; sometimes destroying the infant, sometimes the mother; sometimes consigning both to the same tomb, in one funeral

procession; and thus changing into the bitterness of grief the expectant joy of a family, and of a vicinity; or, as on the day on which I pen these lines*, darkening with sorrow and consternation the face of an empire.

There is also a circnmstance connected with the ordinary support of the human frame, which accords with a fallen state; and, conformably to our best judgment, with a fallen state only: namely, the general necessity for the use of animal food. Familiarity deadens impressions. But that a holy and pure being, in the full radiance of his Creator's approbation and love, should be constrained, for the preservation of his existence, or of his strength, continually to dip his hand in blood; to deprive of happiness and of life a fellow-creature, differing indeed from himself in form, and qualities, and powers, but the workmanship of the same hand from which his own existence flowed: this would be a supposition inconsistent, I think, with any semblance of probability. The inconsistency bears in its measure, attestation to the truth of that volume,

* November 12, 1817.

which affirms that to man, innocent, and in Paradise, it was said by the Lord God, *Behold, I have given you every herb bearing seed, which is upon the face of all the earth, and every tree in which is the fruit of a tree yielding seed; to you it shall be for meat:* and that it was not until after ages of transgression, and a consequent change in the earthly state and constitution of the sinful race, that the additional grant, now become expedient in the eye of Divine wisdom, was promulgated. *Every moving thing that liveth shall be meat for you: even as the green herb have I given you all things.* It is to be observed that in the paradisiacal state of the earth, *to every beast of the earth, and to every fowl of the air, and to every thing that creepeth upon the earth wherein there is life,* the Deity gave *every green herb,* only every green herb, *for meat.* It was not until the nature of animals, and the state of the earth on which they were to dwell, were altered in consequence of human transgression, that life was taken away, or that blood was shed, by any living existence for food.

Neither is it probable, that had men been a pure and holy race of beings, so material a por-

on of time, putting aside from the question the nount of labour and of solicitude, would have een rendered necessary for the preservation nd comfort of the body, for the care of the ani- nal and inferior part of the compounded indivi- ual; nor that so large a period of the brief easure of mortal existence would have been it were lost in the insensibility of sleep. Yet the actual state of human nature, many bene- its evidently ensue from these appointments. Thus, by the first appointment, that want of oc- upation, which among sinful and active beings ould prove a constant inlet to evil and to dif- usive unhappiness, is in a considerable degree emoved. And with respect to both appoint- ents, how dreadful would be the exterminа- ion effected by war, if in the fury of success he victors were physically capable of pursuing nd pressing, without interruption, the advantage ver their adversaries, instead of being checked n the career of blood by exhaustion, and the verwhelming necessity of repose!

The shortness of the life of man, viewed ab- tractedly, would not prove that he has sinned. An existence of still shorter duration might be

a blessing even to beings perfect in obedience to their Creator. But when the brief span of human continuance upon earth is contemplated in connection with attendant circumstances; the combination strongly corroborates the fact, that we are in a state of ruin. For to this mortal life, circumscribed within so narrow limits, is joined inseparable and perpetual precariousness. Not only will death arrive soon, but he may arrive at any moment. The united wisdom of ages, the concentrated efforts of mankind, cannot ensure to a single individual, that the present moment is not his last. He may be commencing plans of high importance to the welfare of himself, or of his family; he may be advanced with them to the turning point, where difficulties and disappointments are merging in facilities and joyful anticipations; he may be treading with them on the very verge of instantaneous and complete success; he may be in a frame of mind the least desirous of death, the least prepared for death: and this moment may be his last. Nor is it only that at any moment death may arrive sudden and unwelcome. Whether he comes without warning, or with distant indications of his ap-

proach; he may present himself, not under one of his milder aspects, but in any one of the number and the variety of the horrid forms, which he is authorised to assume. Are these facts appropriate to the condition of a race stedfast in primeval innocence? Do not they designate beings, who have justly forfeited the favour of their God? And are not the uncertainties as to the termination of life, uncertainties so accordant with a penal state, uncertainties so manifestly calculated to be morally beneficial in a state furnished with hopes and means of mercy, evidences that moral existence in its present circumstances is partly under a penal judgment partly under a merciful dispensation? Are they not evidences to the truth of Christianity?

There are yet other points of view in which the shortness of life, resulting from the constitution and the actual situation of man, appears so distinctly appropriate to the condition of beings who by transgression have offended their God, yet have not been abandoned by his mercy, that from attention to them singly and collectively much additional support to our general argument may be derived. On an individual per-

sisting in unrighteousness, the shortness of life has judicially a penal operation. It interrupts and terminates his gratifications, his plans, and his hopes. It cuts him off from the means of grace, which he has despised. It dismisses him to bear the consequences of sin obstinately retained in the face of proposed mercy. This operation is in all its branches undeniably just. To a person who, in penitent humility, has become a partaker of the mercy proposed, the shortness of life, allowing him speedily to depart to the blessings which grace has provided for him, is itself an appointment of benignity. To a world of sinful creatures it is universally a kind arrangement, that life should be short. Wickedness grows and strengthens by habit; and in proportion to its growth and strength diffuses augmented misery through a constantly enlarging sphere of influence. The potency of depraved habits matured through successive centuries, and the extreme remoteness of the distance to which death seemed to be driven back, were among the circumstances which nursed up the Antediluvians to such enormity of guilt, and filled the earth "with violence." Nor is it merely

that the briefness of moral existence soon delivers the victims of injustice and cruelty by removing the man who renders them wretched. Put the case of an oppressor, the torment of his fellow-creatures stationed within his reach; and assume that, when intercepted in his career by death, he leaves behind him a son like to himself. The change is, under ordinary probabilities, a merciful alteration. The son, with his father's principles, has not his father's inveterate habits. With his father's disposition to mischief, he has not his father's practical skill in devising and accomplishing evil. His father's instruments may not be at his command; or, if willing to be employed by him, they may not suit his purposes. On these new grounds, we ask whether the shortness of life, under different points of view thus characteristically both a penal and a merciful appointment, is not among the proofs by which natural theology attests that man has transgressed; that grace is proposed to him; that Christianity is true.

CHAP. VIII.

ON CIRCUMSTANCES CONNECTED WITH THE TENDENCIES AND THE FACULTIES OF THE HUMAN MIND.

If the corporeal structure of man, surveyed in connection with his earthly condition, denotes him to be at present the object of penal chastisement in consequence of transgression, yet of chastisement bearing also the character of moral discipline, and mercifully abounding in tokens and means of grace; the conclusion receives additional support, when his mental dispositions and powers are contemplated.

The dignity of human nature is the favourite theme of the philosopher. How august, he exclaims, the intellect which explores the earth and the sky; which, by instruments and processes of its own devising, analyses into primordial elements the metals, and the stones, and the salts, and all other constituent parts, or more recently arranged productions of the globe; which subjects to its scrutiny the invisible and impal-

pable fluid that we breathe, rends assunder its component ingredients, imprisons them in separate vessels, and probes and explores each of them by experimental operations, as though it were a discernible and tangible mass of iron; which, plunging with its telescopic eye into infinite space, detects the existence, measures the gravitation, ascertains the motions, and predicts for distant years, and to the accuracy of a moment, the positions and the eclipses of planets; which, turning from the realms of science to the regions of literature and taste, accumulates the learning of antecedent ages, or expatiates in the sublimest flights of eloquence and of poetry; which, subjugating every passion to the empire of reason, and reducing under obedience the keenest feelings of its own bodily habitation, scorns in Diocletian the empire of the world, or awaits in Regulus with calm unconcern the terrors of the most excruciating death. That powers of noble character, powers indicating a divine origin, still belong to the human intellect, I mean not, I desire not, to deny. As little do I contest that, through the unseen grace of an unknown God, from whom cometh in whatever

clime, and in whatever age, and to whatever individual, every good and perfect gift, memorable examples of moral virtue have occasionally brightened in ancient times the darkness of Paganism; or may dart in this our day a transient lustre across the gloom of superstition and idolatry in California, or in Madagascar, or in Thibet. But when we are told that the Pantheon and the Coliseum, that the Column of Trajan, and the Arch of Constantine, are at this hour rearing their summits, and commanding universal admiration; do we infer that Rome is remaining the inviolated empress of the world? Approach these monuments of her primeval state; survey them in their rents and their fractures and their mutilations; observe them sunk in deep cavities, amidst elevations formed by the ruins piled on ruins of the surrounding city: and you behold in these very monuments of defaced and dilapidated grandeur, and in the accompaniments by which they are encircled, attestations the most decisive to the sword of Alaric, of Attila, of Genseric, of Odoacer, to fourteen centuries of havoc, of despoliation, of depression, of dethronement, of bondage. It is a fact ascertained

ond the possibility of contradiction; it is a
confirmed by all history, and by all expe-
ice; it is a fact open to the view of every in-
idual; it is a fact, therefore, specifically pla-
within the province of natural theology, and
nonstrable by her testimony; that human na-
e is pervaded by sin. To discover to man
t his nature is corrupt, is not the appropriate
ce of the Scriptures. They affirm that cor-
tion; they afford a clearer insight into its ex-
t; they disclose the cause of it, and the re-
dy; they bring life and immortality to light
the Gospel. But to the discovery that this
ruption is now universally inherent, natural
ology is competent. The fact is one "which
observation and natural reason man is capable
attaining;" one which, if he employs even
an ordinary portion of attention in contem-
ing himself and mankind around him, and
reises even but an ordinary measure of reason
airly weighing the particulars which his at-
ion has collected, he cannot fail to attain.
e world is replete with wickedness. What is
object for which goverments are instituted?
e repression of iniquity. What is the object

of law? To prevent man from preying upon his neighbour. Why, under the wisest and the happiest form of government, that with which Providence in its distinguishing mercy has blessed Great Britain, are laws in a continual progress of multiplication? Because the forms and modes by which violence and deceit are ever plotting to effect evil are unceasingly diversified, enlarged, multiplied. Why is history exposed to the reproach of being characterised as a record of human crimes? Not because crimes are more attractive as topics of narration, not because they are more influential on happiness, than virtues; but because in all countries, and in all ages, examples of flagrant crime are far more common among mankind than instances of eminent virtue. Why in all the transactions of private life is every man seen solicitous to guard himself by prospective and precautionary measures against imposition, against breach of promise, against injury under some of its numerous forms? Not because he recollects that, without such precautions there will exist a possibility that he may be injured; but because he is aware, experimentally and habitually aware, that without them

the probability of sustaining injury will be great. Consider, farther, how impressive are the counteracting circumstances, the dissuading motives, the opposing principles, the acknowledged sanctions, in the face of which the general propensity to evil exerts itself, governs the heart, displays itself in the conduct. It persists against admonition, against entreaty, against the dictates of affection, against the desire of a good name, against consequences already felt, against the unsheathed sword of law, against the foreseen and acknowledged and hourly approaching recompense of eternal blessedness, or of everlasting damnation. I have adduced without irrelevance into the catalogue these awful disclosures of Christianity. For, although the certainty of endless happiness, or of endless misery, in a world beyond the grave is a pure discovery of revelation; the fact that multitudes on every side are abandoning themselves to sin, notwithstanding their consciousness and their admission of those discoveries, a fact among the most decisive evidences of the corruption of human nature, is perfectly and universally known by ordinary observation: is equally open to the notice, equally as-

certainable by the enquiry, of the Christian the Jew, of the Mahometan, of every obser Heathen who may visit Great Britain.

That a nature radically indisposed to perf the will of its Creator, bent on gratifying i by indulging in pursuits and practices which abhors and peremptorily forbids, should b been originally implanted, such as it is, i created being by a Deity invested with power, and the wisdom, and the benevole and the other attributes which Natural Theol developes; it is absolutely impossible to ceive. The true conclusion is inevitable; ar is pronounced by Natural Theology. Hu nature is fallen from the state in which it originally formed by the creative goodness God. Human nature has corrupted itself, corrupted itself universally. The time, the m the immediate cause, the attendant circums ces, of the primeval depravation of man, Nat Theology knows not. For information on t points, and on topics connected with them, refers man to the Power who knows all thi As to the existence of the corruption, she i resistibly decisive.

Speculation is apt to be not unfortunate merely, but irrational. And few speculators have been less fortunate, or less rational, than those, who, casting aside the communications which the Scriptures impart concerning the origin of evil, undertake to account for it themselves. Of such theorists, who commonly have also a plan of their own for renovating the world connected with their theory, and not unworthy of it, some comprehensively ascribe the whole mass of human evil to education. The faculties of the mind, they is averred, are in childhood and in youth so shackled and debased, the avenues of the intellect are so clogged and pre-occupied, the bias of the judgment is so perverted, and the wings of the imagination are so crippled, by the tales of the nurse, and the tales of the pedagogue, and the tales of the priest, that the mischief effected is almost irremediable. The man has lost his mental and even his physical dignity; and comes forth from his pupillage with every quality fitted to constitute him, through life, a dupe, and a slave, and a fanatic, and a villain. That the argument, or rather that the train of assertion, may enjoy every advantage; be it admitted, that edu-

cation may be made the instrument of instilling erroneous principles in taste and literature, false doctrines in religion, and degrading prepossessions in politics. But what, in every Christian country, Protestant, or Catholic, or of the Greek communion, might we affirm to be the object and the tenor of education, so far as education is bestowed? What in our own country, in particular, a country where statements, such as the preceding, have not unfrequently been heard; a country to which such statements are pronounced by their assertors to be applicable; what is the object, what is the tenor of education? Does education direct the pupil to be a drunkard, or a hypocrite, or a profligate? Does it offer its premiums for pre-eminence in gambling, or in idleness, or in sensuality, or in profaneness? Does it hold up its chastisements *in terrorem* to the unhappy boy, who shall be convicted of modesty, or of industry, or of forgiveness, or of kindness, or of honesty, or of speaking the truth? Does it propound rules for the encouragement of vice, and deliver lectures on the duties of immorality? On the contrary, is it not the declared purpose, is it not the settled practice, of educa-

tion, to teach and to enforce every moral virtue? If there has been heretofore, if there yet be found, a special fault in our own schools and seminaries, it is a fault which our opponents will not condemn; it is the unguarded and undue exaltation of Pagan morals and characters, without a regular and full exposure of the gross defects of both by the light of the Gospel. Education the source of human corruption! Instruction may be imperfect; it may be mingled with error; it may be inadequate to the extermination of the enemy whom it combats. But the influence of education, always directed against moral evil, undeniably tends to circumscribe and to repress it.

Other theorists of the same class, ascribe all human corruption to the contagion of Society. The mind, they affirm, is naturally averse to evil, and disposed to all that is good. But when the young man enters upon active life, he is encompassed by general wickedness, and is corrupted. Such theorists have an antecedent question to answer. Whence has come the general wickedness, by which the youth is encompassed and corrupted? Assuming it to be there, the

ordinary consequence, we might reasonably hope, would be this: that the alleged native disposition to goodness would repel the contact, or purge off the casual stain, of abhorred evil; that the triumph of virtue would be the customary result of the trial, defeat and lapse the rare exception. But to the antecedent question. Whence has come the wickedness? In other words, how is it to be explained, that mankind, if naturally disposed to good and abhorrent of evil, have grown evil by mutual association? The averred fact is repugnant to all analogy. Associate together a number of individuals, distinguished by the same leading disposition of mind; and the result is a strengthening of that disposition, and a progress in the attainments which form its object. Institute a society of musicians; establish another of chemists, and another of astronomers. The effects of the association are, increasing ardour in the pursuit, and practical improvement in the science, of Music, of Chemistry, of Astronomy. Had men been naturally characterized by goodness, the result of their union in society would have been advancement in the love and in the practice of goodness. If the result of

society has been the reign of wickedness; the inference is, that they were naturally evil. Natural Theology re-affirms the irresistable conclusion, that through transgression the nature of man has fallen from a holier state, in which it proceeded from the hand of its Creator.

But while these views of human nature prove man to be in a fallen state, in a state of transgression, and consequently in a state which renders him obnoxious to punishment at the hand of his God; there are concomitant circumstances, connected with the subject, and within the scope of Natural Theology, which are calculated to cheer the heart with hopes and intimations of mercy. By instances displayed in every period, and in every station of life, experience is continually testifying that human nature is capable of an essential and a radical change. Drunkards are rendered sober; thieves become honest; churls practice kindness; liars veracity; and not through the operation of motives resting on health, or on character, or on worldly interest, but through the influence of principle on the conscience. The philosopher ascribes the transformation to the power of rea-

son; the Christian knows that it was wrought by Divine grace. But the change, to whatever cause the student of Natural Theology may attribute it, is manifest to his observation, is undeniable. The capability of such a change demonstrates, that offending Man has not been wholly cast off by his Creator. It intimates, that mercy may be behind; that mercy may be at work; that from the inscrutable counsels of an unseen God there may emanate some mighty plan, by which pardon and reconciliation may be extended to the sinner without impeachment of the divine holiness. If there had not been intended an opening for mercy, we might have expected punishment to be immediate, or the transgressor to be fixed in obduracy.

From the dispositions of the mind, let us return to its faculties. In their general amount, and in the sum of the attainments to which they are competent, there is a discernible fitness to the condition of a being under the displeasure of his Maker, yet not rejected from mercy. The mental powers are adequate to the necessities of man; a fact which would have answered, even in the case of an unoffending being, the largest

demand of equity. But they are adequate also to confer various and rich delights on the possessor; a fact which establishes benignity in God: and benignity to an offender is mercy. Yet though adequate to meet the necessities of human life, and constantly to multiply its enjoyments; they are not such, either in their magnitude, or in their diversities, as to prevent or to remove most serious and perpetually occurring disquietudes. They are deeply marked with imperfection in their nature, and accompanied by unsatisfactory results in their exertions. In the case of beings innocent, and consequently retaining the fulness of Divine favour, we should conclude, that the use of appointed means would finally ensure the attainment of the end proposed. And as intellect is the noblest among the powers of man, it would be with special confidence that we should attach this conclusion to the employment of intellectual means, and the pursuit of intellectual objects. How different is the condition of man. In him foresight does not ensure safety; nor perseverance the protection or the recovery of his rights; nor study the acquisition of the knowledge of which he may stand in need;

nor medical skill the removal of the debility under which he labours, or of the torture under which he groans. Investigation may end in disclosing to him inevitable dangers; or in proving that the evils which oppress him are beyond remedy. All his pursuits of knowledge are accompanied with drawbacks. Every accession is an additional step of elevation, which shews to him the progressively enlarging horizon of his ignorance. His mind is a store-house of limited capacity; and if it be subdivided into many compartments, for the reception of numerous articles, the smaller is the portion which can be deposited in each. It is a granary with a floor perforated by crevices, through which the corn is incessantly trickling away. We sometimes speak with astonishment of the quantity of particulars which an individual remembers. The astonishment may be just, on a scale of comparison; but the general feeling, as to memory, might well be that of surprise at the scantiness of her gleanings. I speak of intellects of the ordinary standard. How few are the transactions of past life, of which a man can deliver a copious or a precise detail! How little can be repeated of

a volume which we have recently read! How insulated, and how few, the fragments retained of the poem, which enraptured us twelve months ago! To be required to expend great mental labour for the recompence of slender and fugacious acquisitions, of acquisitions too which continually prove incompetent to answer the purpose for which they were sought, is an appointment accordant, not with the condition of innocent and unreservedly favoured beings, but of a race justly doomed to feel, in the very exercise of its highest faculties, mementos of transgression, and sensations of chastisement.

On the other hand, the exquisite goodness of the Deity manifested in his intellectual bounties to mankind, the insight which He graciously enables man to attain into His glorious works on the earth and amidst the skies, and the special delight which He has annexed to devout and holy contemplations, argue His own holiness; justify the expectation of His regard to holiness, nay even to endeavours after holiness, in his creatures; and encourage and warrant the humble hope, that a penitent transgressor may be blest with pardon and acceptance.

The knowledge attainable by natural reason of a Deity, and of a future state, was fitted, in its precise degree, to a guilty race continued within reach of mercy. In the invisible works of God, His existence, and His attributes, were displayed by evidence so clear, as to leave without excuse all who should reject it. Yet was not the stimulus more than necessarily urgent to rouse men to search after the invisible Power, in whom they lived and moved and had their being, if haply they might feel after Him and find Him. And when the mind, satisfied that sooner or later this unseen God would judge the inhabitants of the world in righteousness, surmised that the completion of the process might be deferred beyond the grave; the eye turned with dubious gaze to that dimly discovered region, where gleams of hope and shadowy forms of terror were blended in awful and perplexing obscurity.

CHAP. IX.

FACTS IN COMMON LIFE, WHICH ARE EVIDENTLY PENAL YET ACCOMPANIED WITH INDICATIONS OF MERCY.

T is within the scope of imagination to conceive, though our limited knowledge of the universe neither furnishes us with an instance, nor permits us to affirm that an instance exists, that a race of intelligent beings, unoffending, holy, possessing the unclouded favor of their God, might be for a pre-determined time placed and continued by Him, with an ultimate view to their exaltation to higher degrees of spiritual and consequent felicity, in a state of existence comprehending both the necessity of labour, and the possibility of mental and corporeal pain. The labour might be appointed for the exercise and improvement of their faculties, and as the mean of attaining objects indispensable or desirable; and the possibility of pain might be annexed to the non-attainment of the objects, as a stimulus to excite and to ensure habits of labour.

In this case, both appointments would be e
nations of benignity in the Creator. In suc
supposed instance, what should we expect t
the general arrangement as to these appo
ments? We should anticipate that the urge
of the labour, and the quantum of the p
would be exactly commensurate with the
spective ends which have been specified.
should conclude that the labour, if employ
would be uniformly rewarded with the f
which it sought; that the pain, if allowed by
dolence or inattention to supervene, would i
mediately cease on the due exertion of the lab
which it was commissioned to excite.

But suppose that we were made acquain
with the existence of a class of beings, fr
whom labour was required as indispensable
their comfort and to their actual preservati
yet whose labour, when duly exerted, was fr
time to time proving inefficacious, inadequat
attain either its immediate or its ultimate obje
being subjected to corporeal and mental p
but in numerous cases rendered by that v
pain incapable of labour, disqualified either
bodily or for mental exertion. What would

our reflections? We should say: "Here is labour failing to reap its fruits. Here is an overplus of pain beyond the amount requisite as a stimulus to creatures disposed to obedience; an overplus tending to incapacitate, for a season, or even permanently, for active service. The labour and the pain manifestly partake of a penal character. They attach also upon the whole race by the present constitution of its nature. The race of beings is not a holy race. It is a race of offenders, a race whose nature is depraved."

Under which of the two descriptions fall the labour, and the pain, which characterise human existence?

Examine some of the leading and necessary branches of human exertion.

Of men in the state of uncultivated savages it is not necessary to speak in detail. Yet in different parts of the globe they have collectively formed for so long a period of ages, and they still continue to form, so considerable a portion of the human species; that their situation as to the balance of labour and suffering on the one hand, and of the recompence of enjoyment on

the other, cannot be left unnoticed. To toil day by day over wilds and swamps for a precarious subsistence by the chace; to shiver on the sea-beat cliff, drenched by the rains, or loaded with the snows, of inhospitable climes, in pursuit of the fowl or of the fish on the capture of which life hangs dependent: this is labour, this is pain, which habit, in proportion as it generates apathy, may render supportable. But is it the grateful exertion, is it the gentle stimulus, which would be assigned to holy beings, on whom the countenance of their heavenly Father was beaming with unclouded love? The precipice, the mountain, the lonely forest, the interminable desert, the resounding ocean, are sources of varied and rich delight. But it is to him who, amidst competence, and serenity, and leisure, contemplates the scene in its beauty or its grandeur: not to him who, amidst penury, and weariness, and pain, knows it only in its hazards and its privations.

Turn your eyes, then, to man dwelling under the blessings of civilization.

One of his most general and most prominent occupations will necessarily be the cultivation of

: ground. As the products drawn from the
l form the basis, not only of human subsist-
ce, but of the wealth which expands itself in
: external comforts and ornaments of social
: ; we should expect that, under a dispensa-
n comprehending means and purposes of mer-
, the rewards of agriculture would be found
ong the least uncertain and the most liberal
the recompences, which Providence holds
th to exertion. Experience confirms the ex-
ctation, and attests that man is not rejected of
s Creator. Yet how great, how continual, is
: toil annexed to the effective culture of the
rth! How constant the anxiety, lest redundant
oisture should corrupt the seed under the clod;
grubs and worms gnaw the root of the rising
nt; or insects devour the blade; or mildew
st the stalk; or ungenial seasons destroy the
rvest! How frequently, from these and other
uses, are the unceasing labours, and the pro-
sing hopes, of the husbandman terminated in
tter disappointment! Agriculture wears not,
this our planet, the characteristics of an occu-
tion arranged for an innocent and fully favoured
e. It displays to the eye of Natural Theology

traces of the sentence pronounced on the first cultivator, the representative of all who were to succeed: *Cursed is the ground for thy sake. Thorns also and thistles shall it bring forth to thee. In sorrow shalt thou eat of it all the days of thy life. In the sweat of thy face shalt thou eat bread.* It bears, in its toils and in its solicitudes, plain indications that man is a sinner.

Observations in substance corresponding with those which have been stated respecting tillage, might be adduced concerning the care of flocks and herds. The return for labour in this branch of employment is, in the ordinary course of events, sufficient, as in agriculture, both to excite and sustain exertion; and to intimate the merciful benignity with which the Deity looks upon mankind. But the fatiguing superintendence, the watchful anxiety, the risks of loss by disease, by casualties, by malicious injury and depredation, and, in many countries, by the inroads of wild beasts, conspire in their amount to enforce the truth which has been inculcated. They inscribe the page of Natural Theology with the scriptural denunciation: that the labour and the pain assigned to man are consequences of transgression.

Another of the principal occupations of man consists in the extraction of the mineral contents of the earth, and in the reduction of the metals into the states and the forms requisite for use. On the toil, the irksomeness, and the dangers attendant on these modes of life, it is unnecessary to enlarge. They have been discussed in a former chapter, with the immediate subject of which they were necessarily connected; and have been shewn to be deeply stamped with a penal character appropriate to a fallen and guilty race.

Another and a very comprehensive range of employment consists in the fabrication of manufactures. These, in correspondence with the necessities, the reasonable desires, the self-indulgence, the ingenuity, the caprices, and the luxury, of individuals, are diversified beyond enumeration. But it may be affirmed generally concerning manufactures in extensive demand, that in common with the occupations which have already been examined, they impose a pressure of labour, an amount of solicitude, and a risk of disappointment, such as we cannot represent to ourselves as probable in the case

of beings holy in their nature, and thoroughly approved by their God. The tendency also of such manufactures is to draw together numerous operators within a small compass; to crowd them into close workshops, and inadequate habitations; to injure their health by contaminated air, and their morals by contagious society.

Another line of exertion is constituted by trade, subdivided into its two branches, domestic traffic, and foreign commerce. Both, at the same time that they are permitted in common with the modes of occupation already named to anticipate, on the whole, by the appointment of Providence, such a recompence as proves adequate to the ordinary excitement of industry, and to the acquisition of the moderate comforts of life; are marked with the penal impress of toil, anxiety, and disappointment. Natural Theology still reads the sentence; "In the sweat of thy face, in sorrow, shalt thou eat bread." Vigilance is frustrated by the carelessness of associates, or profit intercepted by their iniquity. Uprightness in the dealer becomes the prey of fraud in the customer. The ship is wrecked on a distant shore; or sinks with the cargo, and with the merchant, in the ocean.

If a similar examination were prosecuted in detail, first through lines of human employment which have not hitherto been mentioned, and afterwards through the various divisions and subordinate ramifications of those lines which I have noticed; a result, varied by somewhat lighter or darker shades in the different cases, but in its general complexion accurately corresponding with that in which the discussions pursued in the preceding part of this chapter have concurrently terminated, would be impressed on the mind. But it will be sufficient for our purpose to have marked the broad features of the subject.

There is, however, one employment, which must yet be separately specified: an employment which, in savage or imperfectly civilized tribes, may be said to be one of the occupations of every man; and in communities farther advanced in refinement not only engages in the construction of its machinery various classes of manufacturers and of traders, but embodies its immediate followers into a distinct and populous profession. The employment is that of war. It is one which bears on its front the indelible brand of punishment and of guilt. It is penal

in its nature. It has its root in unrighteousness. The conflict of man with man is not the encounter of the wild beast with its antagonist. The brute animal, of whatever blind passion he may be following the impulse, wars not against checks of conscience, and convictions of duty. His aggressions are not perpetrated nor planned in the face of moral responsibility and the knowledge of God. Well may Natural Theology teach us, when she sees the nations of the earth *continually gathered together for war*, that the heart of man is in its nature sinful; teach us the lesson of inspiration, that *the sword* ranks with *the famine, and the noisome beast, and the pestilence*, as one of the *four sore judgments* of God upon an unrighteous world. Well may she teach us to hope, whenever she contemplates any one of the numerous tokens of mercy discoverable by her in the dispensation under which we dwell, that among the unseen purposes of grace may be the arrival of a period, when *nation shall not lift up sword against nation, neither shall they learn war any more.*

The result then of our enquiries is this. The labour, taken collectively, which is imposed on mankind is, in its degree so great, and in its

prospects so variable, and in its effects so precarious, as by no means to comport with the probable situation of a holy race: and the antecedent and the attendant pain far exceeds the measure of disquietude, which we could conceive necessary as a stimulus to beings disposed to obedience.

Virgil, when describing human labour, though poetically incorrect in his appreciation of its efficacy, is accurate in delineating its nature.

> —Labor omnia vincit
> Improbus, & duris urgens in rebus egestas.

It is not the necessity of labouring which argues man to be a transgressor. It is the *improbitas*, the severity, of the labour required. It is the *durities*, the onerous and harrassing urgency, of the circumstances which are continually demanding labour. It is the disheartening fact that the labour, so far from deserving to be characterised as that which *vincit omnia*, which constantly attains its object, is perpetually failing to attain it.

But while the preceding statements, upheld by Natural Theology, stamp human labour with a penal character; the large amount of the ad-

vantages and the comforts, which, amidst anxieties and uncertainties, it is on the whole permitted by Providence to procure, testifies that God regards the guilty race with an eye of mercy. The harmony of these conclusions with the Scriptures is manifest. The aspirations to which the pupil of Natural Theology, when he is contemplating the toils and the troubles of human life, feels himself prompted, are such as to attest the wisdom with which the sacred volume frequently singles out the term *Rest* to designate a state of heavenly blessedness. *There remaineth a Rest for the people of God**. *It is a righteous thing with God to recompense to you who are troubled Rest with us, when the Lord Jesus shall be revealed from Heaven with His mighty Angels*†. *I heard a voice from Heaven saying unto me, Write; Blessed are the dead which die in the Lord from henceforth: Yea, saith the Spirit, that they may rest from their labours*‡.

* Hebrews, iv. 9—11. † 2 Thess. i. 6, 7.
‡ Rev. xiv. 13.

CHAP. X.

ON THE ARGUMENT FROM NEGATION.

the preceding chapters I have endeavoured
ihew that existing facts, lying wholly within
province of Natural Theology, and severally
ıblished and discussed in their respective
:es, concur both in suggesting and in sustain-
conclusions, which lie at the root of Chris-
ı doctrine; and thus bear testimony to the
th of the Christian Revelation. The general
ument in those chapters may be termed the
:mative argument. But there is another train
reasoning, which leads to the same inferences
he former, from premises altogether opposite;
n the absence, or the practical non-existence,
facts adverse to those inferences. I use the
ıression, practical non-existence, for the fol-
ing reason. It will be found that if, in some
ticular cases, insulated facts apparently ad-
se to any of the preceding inferences may be
duced, those facts are either too inconsider-

able to affect its general force: or are nullified, and rendered practically non-existent, as to their bearing upon it by other facts, with which they are specially conjoined. This train of reasoning constitutes the argument from Negation: an argument which, when viewed in its extent, will bring to the mind of a candid enquirer collateral corroboration of truths which have been previously sustained by affirmative evidence.

If it be averred, that facts exist, which militate against the conclusions maintained in the former chapters; the proof rests with those persons who advance the assertion. Let the facts be produced.

An objector then may possibly allege, that there are many countries in which volcanos do not exist; and in which earthquakes also, if not unknown, have never been recorded as detrimental. The statement is true. But the conclusions against which it is advanced are in no degree endangered by it. Those conclusions were founded, not on the universality of earthquakes, and of volcanos; but on the sufficient and indisputable facts of their frequency, and of their desolating ravages. If the frequency and the ravages were adequate to sustain the conclu-

ons, more was not requisite to the argument. le who should refuse to admit the conclusions ntil volcanos and earthquakes shall break forth n every country, might as reasonably demand, hat they should break forth in every province, r in every parish, or that they should spread estruction every day.

Perhaps the objection may take another shape. t may be affirmed, that there are regions in which food is attainable with comparatively trifling labour, or in which cloathing is scarcely needed. Be the positions admitted. The admission is entirely harmless. In such regions there are accompanying peculiarities, which raise the quantum of labour and trouble to the ordinary level of other countries, nay possibly above it. In Hindostan, for example, rice, the main article of local sustenance, is cultivated with extraordinary facility, and is proportionally cheap. But where is the country on record, which has suffered so tremendously by famines? Drought from time to time interposes, scorches the crop, and exacts the balance of toil and sorrow. If the tropical African has little concern as to raiment; he has constantly to defend his herds, and his family, and himself, against the hyena and the lion.

Egypt is memorable for her fertilising river and equally for opthalmia and the plague. Syria from her luxuriant plains gazes with terror on the armies of locusts, while *before them the land is as the garden of Eden, and behind them a desolate wilderness.* "It has been remarked by various travellers, that they have no where witnessed more distress and poverty, than where provisions were so cheap, that a plentiful subsistence might be obtained at the rate of a penny a day*." And generally, those countries which are distinguished by extraordinary fertility are particularly subject to the inroads of rapacious invaders, or to the grinding hand of despotism.

It may also be said, by an objector, that in the higher classes of civilized life there are numbers of individuals, who are enabled by their situation to pass through the world with little exertion of personal labour. But let it be remembered that a large proportion of those men, who do not labour with their hands, feel a necessity of labouring with their minds; and that

* Sumner on the Records of Creation, &c. vol. ii. p. 336. where reference is made to the Travels of Turner, Morier, and Pallas.

ie anxieties attached to the pressure of mental ccupation will not shrink from a comparison vith the sensations which accompany bodily toil. And is the absence of the necessity for personal abour, in the case of beings such as man now s, to be estimated as a certain and an unmingled dvantage? How often is it seen to generate a habit of intemperance; or to foster a propensity to gambling; or in other modes to injure health, and to debase the heart, and the conduct? How often does it terminate in slothfulness of body, and in vacuity of mind: and render the victim of *ennui* so miserable, so weary of his idleness and of himself, that he feels convinced that he should have been a more happy man, had he been born in a cottage, and trained to the spade and the plough!

The argument from Negation, as applied to the corporeal powers of man, loses not any portion of the strength which it has evinced in the preceding applications.

Point out the bodily faculty now pertaining to man, which is incompatible, which is inconsistent, which is in any respect discordant with the positions, that his original nature has been depraved through transgression; and that at pre-

sent he is placed in a state combining penal discipline with plans and means of Grace. Shew the particular in which the organ of sense, or the allotment of strength, or the measure of health, or the appointed span of mortal existence, is not in complete harmony with these positions. Scrutinise man under every light: touch the incongruous spot. Is no incongruity discoverable? Consider then how slight an alteration would have produced one. Consider how many openings existed for alterations. Consider how easily some power, at present granted to man, and essential, or eminently important to him in the condition into which we are assuming him to have fallen, and under the dispensation of which we are regarding him as the object, might have been curtailed, or altogether withheld. Reflect also, that with equal facility powers now unpossessed by man, and more or less at variance with his welfare or with his moderate comfort in his existing state and under his actual dispositions, might have been superadded by Omnipotence: nay, powers, concerning which it perhaps were not presumptuous to say, that, had man been an innocent being, had he been a being contemplated by the Divine prescience as steadfast in

ighteousness, and secure in the consequent enoyment of the favour of heaven, it is not improbable, that under some form or modification they might have been conferred. Take for an illustration, the power of rapid motion on the surface of the earth, and to a certain height above it, as by some endowment analogous in its effect to the capacity of flying. When we look up to the state of superior Intelligences, Seraphs, Archangels, Angels, the Thrones and Dominions and Principalities and Powers on high; there is not an individual amid the innumerable company to whom the mind does not instantly and as it were involuntarily ascribe as an Attribute the capacity of rapid and unincumbered motion to very distant places. When fiction peoples earth and sky with essences superior to man; whether it be with imaginary deities of every shape and every character, or with genii, or with sylphs, or with gnomes, or with fairies: this power is infallibly attributed to all. When man pictures to himself, as prepared for his species, a future state of purity and felicity; this power is at once conceived as a certain appendage. When he is encompassed with solicitude and danger, what is his natural exclamation? O

that I had wings like a dove: for then would I flee away and be at rest! When he surveys the face of the globe, he sees the beasts of the forest and of the desert fleeting by him, with celerity, which in a few seconds transports them beyond his view. He sees the fish glance through its yielding element with the velocity of an arrow. He sees the birds of every plume ranging with boundless freedom through the regions of air, and crossing kingdoms, climates, and oceans. He sees countless families of the meanest insects darting from flower to flower; soaring aloft in the sun-beam; and passing as in a moment, and without an apparent effort, spaces immense when compared with the glittering atoms by which they are traversed*. Yet he is himself in-

* Saussure, when approaching the highest point of Mount Blanc, on the third day occupied in the ascent, observed a butterfly traversing the snows, about two hundred yards below the summit. He afterwards describes, from personal inspection, the facility with which insects attain, in those icy regions, the loftiest elevations. "J'ai quelquefois été témoin de la manière dont ces insectes s'engagent sur les glaciers. En voltigeant sur les prairies qui les bordent, ils s'aventurent au-dessus de la neige ou de la glace: et, s'ils perdent la terre de vue, ils vont toujours en avant; et ne sachant ou se poser, pour peu que

oriously creeping along the ground; incapable f atchieving without anxious preparation, and a large expenditure of time and of exertion, a transit promptly accomplished by a swallow, or a pigeon, or a field-fare, or a fly-catcher. With the condition of a guiltless being, how accordant were the possession of this power! How gratifying to his feelings! How analogical, so to speak, with the bounteous exuberance in which the participation of it is diffused! But look on man as a transgressor against his God, as a being infected with a depraved nature inciting him to continued transgression: and ask yourself what corporeal endowment would be more fatally subversive of human happiness, than the possession by man of powers of loco-motion like those of the bird or the insect? Where would be a more tremendous instrument of mischief; an instrument less liable to be repelled or eluded? What would have been at this hour the probable situation of Great Britain, if during the conflicts of the last twenty years her enemies had been enabled at pleasure to take the wings of the wind, and to alight in

e vent les soutienne, ils volent usque sur les sommités es plus elévées." Voyages dans les Alpes. tom. vii. p. 335.

combined myriads on her arsenals, and on her capital? Where would be, at this moment, the security of any household, of any individual; if if the murderer, the burglarist, the footpad, the villain of whatever purpose or description, were capable at any instant of springing into the air and rushing on the near, or on the remote, object of his malignity?

We proceed to apply the argument to the mental powers.

The strength and the variety of intellectual power which it has pleased the Supreme Being to grant to men, and the delight which he has rendered them capable of deriving from intellectual contemplations, are proofs of His merciful benignity. They supply even through the medium of Natural Theology no unsubstantial grounds for the hope, that, by some undeveloped and dimly discerned dispensation of grace, there may yet be in reserve a future period, in which every faculty, unfettered from clogs and unrestrained by impediments, may expatiate and expand itself into perfection. But the highest cultivation of intellect, the largest acquisitions, wonderful as they may justly be deemed, of the skill

and of the wisdom of man, are competent only to ameliorate the circumstantials of his condition. The essentials they cannot alter. They cannot invest him with any modification of potency unsuited to the situation of a guilty being subject to penal effects of sin, yet cheered by prospects of attainable mercy. Man discovers the mechanic powers, the printing press, the telescope, the electric battery, the mariner's compass, the steam engine. He analyses earth and air by chemical agencies. He mitigates by medical research, and for a season disarms, torturing and perilous diseases. He improves the productions of the soil; and multiplies his accommodations, his comforts, and his luxuries. But the span of his existence he cannot prolong. At this hour, as twenty-five centuries ago in the reign of David, *the days of our age are threescore years and ten: and though men be so strong, that they come to fourscore years, yet is their strength then but labour and sorrow.* Man cannot check the volcano, nor rein the earthquake. He cannot ensure a prosperous harvest. He cannot call down a shower from the sky. He cannot turn aside from the ship the fury of the hurricane. He cannot foretell the events of the morrow.

CHAP. XI.

ON MORAL DISCIPLINE, AS INTRODUCTORY AND AUXILIARY TO THE PRACTICAL RECEPTION OF CHRISTIANITY.

THE facts pertaining to Natural Theology which have formed the subjects of the antecedent chapters, have hitherto been contemplated principally as shewing, that man is in a fallen state through transgression; that he is experiencing the penal consequences of sin; and that he is also favoured by his justly offended God with tokens and prospects of mercy. These facts are now to be viewed, generally or severally, as adapted with the most considerate wisdom by the great author of Nature to the purposes of such moral discipline, as is calculated specially to prepare men to welcome the plan of salvation revealed by the Gospel.

If it were in any case inferred, on grounds of natural reason, that it is the gracious intention of a God of holiness to extend to sinful beings pardon and readmission into His favour; the design,

n whatever mode, and by whatever agency, the lispensation of mercy should be accomplished, must be deemed to include the effecting of a radical change of character in every individual who shall ultimately profit by the dispensation. To conceive that a holy God will exempt wilful violators of His law from the penalty annexed to the breach of it, and reinstate them in His favour, while in heart they continue wilfully and pertinaciously bent on transgression; in other words, to conceive that He will deal with obstinate sinners as with righteous beings: would be to suppose that He is not a Holy God, that He is indifferent to righteousness and to iniquity, that He regards alike with complacency the observance and the contempt of His commandments. That it might be within the sphere of Almighty wisdom to devise a plan of mercy, by means of which it might be possible that pardon should be placed within the reach of a sinful world without infringement of the Justice, of the Holiness, of any other of the attributes of God; without giving encouragement to sin in the pardoned race, or in any other portion, present or future, of the moral creation throughout the universe; nay, even, it might be, to devise such a

plan of mercy as should add new sanctions to the Divine Law, new discouragements to transgression, new motives, and persuasives, and aids to holiness: that a plan of mercy of this character might be possible with God, Natural Theology, though unable to aver its possibility, though totally incapable of framing to herself any idea of the mode in which it might be effected, would not utterly despair. That such a plan, if possible with God, might not be beyond the purposes of His ineffable love, the tokens of mercy vouchsafed to sinful man, in the constitution of external nature, and in the daily events and circumstances of life, might induce her humbly to hope. As little would she despair, as gladly would she venture humbly to hope, that to the same Almighty wisdom means might be obvious, that by the same ineffable love they might be employed, for purifying the corrupt heart of man, for delivering it from the dominion of sin, for imbuing it with grateful affection to its God, and with practical reverence for His Laws. If this moral renovation was to be effected in the human heart; the work, it is evident, must be wrought, not by man himself, but by superior influence, by the only adequate

ɔwer, by the power of the Creator. Assume ıch a transformation to have been within the ıoughts and the wishes of man. Where were is capabilities for accomplishing it? Will it be aid that reason is adequate to the task? Read he answer in the state of the heathen world ince the creation; of the heathen world suffiiently left, during nearly six thousand years, to he operations and capabilities of reason. Is it itorted, that multitudes of those persons who ave possessed the Jewish or the Christian Reveation have shewn themselves, and are shewing hemselves, little preferable in their conduct and ı their dispositions to heathens? Allow the fact ɔ be so. If then man, wielding the united veapons of reason and religion, experiences so reat difficulty in resisting the assaults of inerent corruption; what can he hope, if you vithdraw the force of religion, and leave him to he puny succour of reason only? If an army, acked by a train of the heaviest artillery, can carcely repel the onset of the foe; what will be he issue of the conflict, if that onset is to be met nerely with bows and arrows?

It was not however, to be concluded, that the Deity, if He should vouchsafe to provide for the

restoration of the human heart by His divine influence to a state acceptable in His sight, would limit His purposes to his own direct and invisible operations on the faculties and the dispositions of the soul. We behold Him employing, in the external administration of the Universe, in the conveyance to mankind of food, and raiment, and every other temporal blessing, the arrangement of connected means, and the agency of subordinate instruments, adapted to prepare the objects of His bounty for the grateful reception of the gift, and to excite their own exertions in the mode appointed for obtaining it. Hence it was antecedently probable, that in a dispensation, whatever it might be, for renewing the heart unto holiness, He would combine with his own hidden work on the understanding, on the will, and on the conscience, an external system of moral discipline, which should habitually tend to render men sensible of their need of spiritual blessings, and disposed, under His grace, to welcome the offer of such blessings, to seek them in the proper way, and to apply them to their proper end. The whole of that system of moral discipline we should expect to be calculated to enforce those general sentiments re-

specting the Deity, and those general feelings towards Him, which are essential to true religion under every dispensation. And it would not be unreasonable to presume, that parts of the system would be specifically fitted to lead men gladly and profitably to receive the particular dispensation, through which Almighty Wisdom ordained that the mercy should be communicated. A system of moral discipline, corresponding with this description, we may discern to be inextricably interwoven into the circumstances of human condition upon the present earth; blended with the frame, the wants, the desires, the enjoyments, the sufferings of men; and, happily for the guilty race, whose pursuit of final happiness through the riches of Divine Mercy it is designed and suited to invigorate, maintained in perpetual and inevitable exercise.

Some of the leading features of this system may be separately noticed with advantage.

If, considering human life as the period, the right or the wrong employment of which, under means of grace afforded to us, is to decide our happiness or our misery in a subsequent state, we were desired speculatively to suppose as universally annexed to life some circumstance,

actually felt now, or to be devised according to our imagination, which we should deem in itself the most likely, if so annexed, to conduce to a right employment of mortal existence: would not it be the actual characteristic of brief and ever precarious duration? *Watch ye therefore; be ye like unto men that wait for their Lord; for ye know not at what hour your Lord doth come: therefore be ye also ready, for in such an hour as ye think not, the Son of Man cometh:* this is the warning voice equally of reason and of revelation. It is a voice to which every example of sudden death gives an accession of energy. The considerate mercy of Providence is evinced in the limits within which the ordinary recurrence of sudden death is circumscribed. The event happens with frequency sufficient to keep alive in general recollection a salutary degree of apprehension: but not so continually as to weigh down the minds of men with habitual terror and despondence, and immoderately to derange human undertakings, and to dispirit human foresight and exertion.

Another step in the progress of the moral discipline under contemplation is discernible in the fragility of health. Not only is life exposed

every instant to immediate termination by some unforeseen cause, external or internal; but its powers, its enjoyments, its very uses are also subjected to the constant hazard of being impaired, of being suspended, nay, of being permanently extinguished, though vital existence may remain, by a secret alteration in the bodily constitution; by a contagious disease; by one of the numerous maladies which in common language we term casual; or by an outward injury affecting some part of organic importance, or lacerating even the mere extremity of a limb, but spreading throughout the frame by those imperceptible and countless communications in which part unites and sympathises with part, consequences equally afflicting and durable. These interruptions and vicissitudes of health are so far restrained by the Divine mercy, as not to disqualify men, viewed collectively, by incapacities either corporeal or mental from pursuing the earthly purposes of their being. Yet, in the bed of sickness and languor and suffering, may Natural Theology mark a scene most wisely adapted for moral discipline. Yet may reason learn the practical lesson inculcated by Christianity, that we are strangers and pilgrims on

earth; that we *have here no continuing city*, that we are to *seek one to come*.

The uncertainty of life necessarily involves the precariousness of every earthly good; and that precariousness is augmented by the uncertainty of health. In these two facts, therefore, is included a mass of moral discipline, adequate, if rightly applied by an individual in his own case, to be of signal assistance in leading the understanding to a rational appreciation of the things of this world; to shew the folly of setting the affections primarily on things below; to prepare the mind for profiting by the Scriptural assurance, that *the things which are seen are temporal, but the things which are not seen are eternal:* and to open the heart to the question addressed to it by Him who will be its final judge; *What shall it profit a man, if he gain the whole world, and lose his own soul?*

But the moral influence to be anticipated from the precariousness of all things earthly, as comprehended within the uncertainty of health, and of life, is constantly deriving aid from precariousness attached by additional causes to each individual object, whether of possession, or of pursuit. Life crowned with health and vigour,

lirecting its faculties and its energies to the attainment of some specific end, is always open to the risk of disappointment, and very frequently called to reap instruction from the reality. From the monarch to the peasant through all the intermediate gradations of station, through all the forms and diversities of profession and employment; in the city, in the hamlet, in the workshop, in the counting-house, on the ocean, in the field; labour, whether of the body or of the mind, cannot in any instance command success. The cup is overturned as it is raised towards the lips; or is dashed away by an unseen hand as it touches them; or when about to be tasted, proves empty; or palls on the mortified palate, or wrings it by bitter dregs. But assume the undertaking to be prosperously accomplished. The man proceeds, necessarily proceeds under the same risks as before, to another, and another, and another object. Nay, his comfort is at all times necessarily dependent on the satisfactory issue of a number of contemporaneous incidents or plans; each of them bearing, according to its kind and its measure, on his gratification or his welfare; and each of them subjected to the universal hazard of failure. Suppose that each of

these incidents and plans, in its own place and tendency, has to-day answered his wishes. Natural Theology unites in the impressive admonition of Revelation; *Boast not thyself of to-morrow: for thou knowest not what a day may bring forth.*

In referring to the precariousness of life and of health, and to the uncertainties, hazards, and and disappointments attendant on every human occupation and pursuit, I have adverted to the ordinary causes only, by which these drawbacks and trials are produced. It is only by causes acting generally that moral discipline is carried into direct and also general operation. But are there not calamities inflicted by means of extraordinary instruments of destruction and devastation, which in some regions the Deity has thought fit to superadd—the volcano, the earthquake, the hurricane, the locust? And is the voice of those calamities unheard beyond the boundary of their havoc? While in the regions where they exist, they exercise a moral discipline direct and general upon the minds of the inhabitants; will not they also possess a kindred, though an indirect and inferior, influence upon the rest of mankind to whom their effects become known?

There are moral feelings and virtues not yet specified singly, which the labour, the anxieties, and the disappointments accompanying man in all his plans and efforts are designed to encourage, through the medium of reflection and of habit; moral feelings and virtues which are not only comprised, in common with all others, within the demands of the Gospel, but are of a class distinguished in the Christian system with particular approbation. Thus the consciousness of weakness and inability, which experience is day by day inculcating, tends to expose and to abase the pride with which man is radically infected; to render him more sensible of his real condition in all points, spiritual as well as temporal; to prepare him for the mercy of that God who *resisteth the proud, and giveth grace to the humble;* and who apprizes us in His revealed word of that guilty pre-eminence of power which pride claims to itself in hardening the heart, in shutting it against the reception of the doctrines of the Gospel, and in drawing numbers who nominally profess them into dangerous heresies and practical disobedience. Thus also, together with humility, meekness, gentleness, and lowliness of mind, qualities which an experimental

perception of inability in ourselves, and of the fragility and precariousness of every thing around us, is calculated to teach: a disposition to seek superior aid; a willingness to submit to dependence upon a gracious God, and to receive mercies, in whatever mode He may vouchsafe to impart them, with thankfulness; sympathetic pity for our companions in trouble, and cheerful exertion for the alleviation of their distresses, are also fostered. He who, under the hidden agency of Divine grace, shall have been led, through the instrumentality of Natural Theology, to a considerable progress in such a frame of soul; though he may not yet have attained to the full belief of Christianity, has made such approaches towards the spirit of the Gospel, that he is *not far from the kingdom of God.*

The vicissitudes of life are constantly exerting their efficacy, and in a diversity of ways, as sources of moral discipline varied in correspondence with the spring whence it flows. That prosperity and adversity bring their different trials, and are severally adapted to call into exercise, and to fortify by practice, the different moral virtues respectively the most accordant with periods of ease or of difficulty, of gladness,

f sorrow; is an obvious and acknowledged h. But in speaking of the vicissitudes of hu- ı existence, and of their effects on the cha- er, I do not confine myself to those altera- s and revolutions in the external features and umstances of an individual which transform whole aspect of his condition, and elevate or ress him to a platform in the gradations of iety higher or lower than that which he oc- ied before. I include all those minor changes, se subordinate fluctuations of condition, very uent in the lives of many persons, common the life of every man, which, in proportion heir extent and their recurrence, exert an in- nce, whether at the time perceptible or im- ceptible, on the character; and hold their ap- priate station among the outward means in- uted to contribute, under the Divine admin- ation, and in concurrence with the free agency towed upon man, to render an individual that ng which in mind and principle he is. Among chief of their moral uses, we may account ir efficacy in scrutinising a man by a change temptations; and thus putting him to the of, and enabling, and, as it were, constraining ı to discern, whether some evil propensity,

by which he regarded himself as through natural constitution little beset, or which he believed himself to have brought under subjection, be actually possessed of small power over him, or be an enemy of far more formidable strength. Suppose a person, for example, to be originally of an irritable and passionate temper, to know his disposition, and to be desirous of subduing it. Suppose him withdrawn, by some variation in worldly circumstances, from a situation of anxious business, in which his violence was frequently roused and aggravated, to a scene of retirement and quiet. Crosses and provocations rarely occur. His habits and tempers are calmed: and, after a season, he congratulates himself, and thanks his God, that his ancient master is now a subjugated foe. Is the foe subjugated? Or has he been only lying in wait for the return of favourable opportunities for renewing the conflict with advantage? The determination of these questions is of supreme importance to the individual. How can they be determined but by a period of trial? Let a change in employment, a domestic necessity, a prospect of usefulness not rightly to be declined, or any other of the many incidents by which the place of abode, the so-

ciety, and the occupation of an individual are liable to be varied, bring him again into the immediate sphere of thwartings and collisions: and he will soon learn by experience whether his freedom from passion rested on the absence of temptation, or on the force of principle; whether he has ground, or has not, for a humble hope, that under the Grace of God he is transformed into a new man in the spirit of his mind. Kindred instances might be adduced, and analogous reasoning might be pursued, with respect to every moral habit. The discipline, and the test of its efficacy, are always present in vicissitude.

In some at least of the following particulars, the obviousness and the directness of the blow which moral discipline, as resulting from the condition of man upon earth, aims against sin, as sin, may deserve to be specially noticed.

The necessities and the uncertainties of life, continually summoning man to labour and care, are so many calls upon him to relinquish inclinations of the moment; so many admonitions and practical aids to the formation of the habit of self-denial. Now, sin is self-indulgence; it is the gratification of our own will in preference to the will of God. Natural Theology thus

points out to us the constitution of earthly things as unceasingly impressing upon every man a habit which, in its essence, is diametrically opposed to the very essence of sin: as teaching him to receive, not as a strange and novel lesson, but as a verity for which the moral discipline of life had unremittingly been preparing him, the declaration of his Redeemer: *If any man will come after Me, let him deny himself, and take up his cross daily, and follow Me.*

Many of the uneasinesses and disadvantages by which a man is harrassed may often be traced by him to his own actual sins. The moral discipline is direct against those sins; and scarcely less than direct against sin in general.

The deliberate injuries, open or secret, which we sustain from others in our property, in our privileges, in our characters, in our persons; the hazard and insecurity to which in each of these respects we are wilfully subjected by others; the labour of body, the expence, the anxiety of mind, by which we are burthened in our endeavours to guard or to recover our rights: all these trials and troubles we perceive to be the result of sin in others, pointed against ourselves. The moral discipline of such trials and troubles is

accurately adapted to convince us, that sin is universally to be abominated as the source of misery; that a Holy God will assuredly punish obstinate sin, not in others only, but in ourselves; that, if we would be warranted in looking for the pardon of our own transgressions, it is most reasonable, that we should be prompt and cordial in forgiving all who sin against us; and, that no folly can merit the name of folly, in comparison with the madness of slighting any dispensation of mercy, which the love of God may ordain for a sinful race. *How shall we escape, if we neglect so great salvation?*

The same feelings, it may reasonably be assumed, will be excited, though in an inferior degree, when we observe others, even persons with whom we have no connection but the tie of a common nature, suffering through the effects of violence, or of fraud, or of slander, or of malevolence under any other form exercised against them. Emotions also of pity for the sufferers, and a desire to co-operate in repelling the injury, and in alleviating the distress, are likely to be produced, and to be excited into action in the immediate instance, and to be animated and invigorated against future occasions of exertion.

Among the most painful of the trials by which men can be pressed, we may enumerate the failure of duty and of affection in children towards their parents; extreme instances of ingratitude in cases in which the benefactor has employed extraordinary efforts, and voluntarily subjected himself to singular sacrifices, for the benefit of the other party; and the want of success in earnest and persevering endeavours to reclaim descendants, or other individuals warmly beloved, from irreligious habits and views to genuine piety and holiness. Yet how peculiarly fitted are such trials to bring those who undergo them to a sense of their own grievous and continual failures in duty and love to that Heavenly Father, whom Natural Theology discloses to them in his visible and glorious works; of their own ingratitude for the blessings which with an unsparing hand He is ever pouring forth upon his creatures; of their own practical repugnance to receive and to obey the lessons of that holiness, which Natural Theology, contemplating His dealings with men, shews that He approves, requires, and earnestly and perseveringly inculcates. Still farther, how peculiarly are these trials fitted to prepare and to lead the sufferer, thus

convinced of his own sinfulness, gratefully and affectionately to welcome the dispensation of the Gospel, which reveals God to man as a reconciled Father in Christ Jesus; which announcing the completion of the inestimable sacrifice voluntarily offered for our ransom, proclaims, *Herein is love; not that we loved God, but that He loved us, and sent His Son to be the propitiation for our sins: God so loved the world, that He gave His only-begotten Son, that whoever believeth in Him should not perish, but have everlasting life*—which calls men to *love Him* who thus *first loved us;* to walk henceforth under the influence of sanctifying grace in newness of heart and life; to live no longer to ourselves, but to Him who died for us; to be followers of Him who *gave Himself for us, that He might purify unto Himself a peculiar people zealous of good works.*

In the situation of man upon earth there is a feature, which not only is intimately and at every moment connected with moral discipline, but is in itself so remarkable, and in its implications so pointed, that it must not be left without distinct observation. Man, stationed as it were in the centre of the visible works of God, is endowed with faculties rendering him capable of discover-

ing by means of those works the existence and many glorious perfections of his Creator. He has intellectual powers qualifying him to glorify that Creator, to adore Him, to praise Him, to feel His excellences, to comprehend His will. For these very purposes man appears to have been formed. Yet from immediate and open intercourse with his Maker, he stands debarred and cut off. He addresses the Divinity by prayer as by a messenger conveying to another world the sorrows and the petitions of the supplicator. He knows his God, as he knows the wind, by effects. But his God meets not his eyes; utters not an audible voice; discloses not Himself to the organs of mortal sense; grants not to the human race the degree nor the kind of intercourse for which, by faculties bestowed, He has graciously vouchsafed to make them competent. I speak of the human race collectively, and of the state of facts as it manifests itself to Natural Theology; not of those few individuals, Prophets, Apostles, and other holy men of old, excepted from the general law ordained for the countless myriads of mankind, and admitted for the furtherance of the divine plans of mercy to special and miraculous communications with

their God. Is not then the condition of man, in the particulars at present under contemplation, marked by a close analogy to that of sons dismissed in consequence of flagrantly evil conduct from the presence of their parent, yet not cast off from his affectionate solicitude; furnished by him with means of subsistence and various comforts; permitted to communicate to him by letters and messengers their wants and their wishes; but prohibited from personal access to him and from personal intercourse with him, although allowed to hope that, if ever a radical change of character shall have been effectually wrought and manifested, the period of penal exile will be terminated? Is it conceivable that man, spontaneously and benignantly fitted in his faculties for a measure of immediate intercourse with his heavenly Father, would be debarred from it, if he had not forfeited the privilege by disobedience? Observe the accordance between these views, suggested by Natural Theology and the Scriptures. Man in Paradise had direct communication with his God. Man, renovated through his Redeemer, shall enjoy it again, and for ever.

CHAP. XII.

ON COINCIDENCES, RESEMBLANCES, AND ANALOGIES, BETWEEN THE ACTUAL STATE OF THINGS AS MANIFEST TO NATURAL THEOLOGY, AND THE SCRIPTURES.

THE Scriptures of the Old and of the New Testament whether contemplated with an eye of faith, or of incredulity, must be acknowledged, if surveyed collectively and candidly, to constitute a progressive and regular whole. The Deist and the Christian may alike behold in them one subject, call it a delusive falsehood or the most momentous of truths, steadily pursued through several thousands of years from the beginning of the Bible to the end; the alleged history of man from his entrance into the present world to his final lot in another and an eternal state: a history opening with his creation; speedily announcing his fall from righteousness, his sentence of condemnation accompanied with intimations of provided means of mercy through a Deliverer in due time to be revealed; disclosing a gradual and connected scheme of preparation for the com-

ing of that great and mysterious Redeemer, by the separation of the descendants of Abraham from an idolatrous world, by the precepts and types of the law enjoined upon them, from Mount Sinai, and by the successive declarations of professed prophets from age to age conveying characteristical marks by which the Deliverer was to be known; subsequently affirming His appearance upon earth, and graphically describing His manner of life, His miracles, His sufferings, His expiatory death, His resurrection from the grave, His ascension into Heaven; tracing the proceedings of His immediate followers in spreading by preaching, sustained by miraculous attestations, His doctrine through many and distant regions; and proclaiming by a fresh accession of prophecies the approaching and joyful union of all the kingdoms of the earth in holy subjection to the Lord and to His Christ, and the ultimate consummation of the purposes of God respecting mankind by the establishment of the righteous in eternal blessedness, and by the everlasting perdition of the wicked. In the case of an ordinary book, the corroboration of some one part by incidental evidence tends to evince the veracity of the writer in other parts. But when

a book of such a concatenated description as has been shewn to belong to the Bible, is found upon examination to be continually adding to its own specific and appropriate evidence the tribute of collateral and concurrent testimony from facts lying around it uncombined on every side, and within the province of Natural Theology; this multiplication of indirect support to individual parts, advances peculiarly powerful attestations to the veracity of the whole. And every additional fact gives, by its accordance with the rest, more than its own absolute weight to the general argument, by which they all uphold the truth of Christianity.

I proceed, therefore, to notice some specific and independent facts open to common observation, which corroborate statements promulgated by Revelation in the Old or in the New Testament.

One of the first of the instances, which might have suggested themselves, would have been the universality of traditions concerning a general deluge; had it not been already necessary to refer to the heathen testimonies ancient and modern concerning it.

There are Scriptural facts, however, of a date

far anterior to the flood, which are easily to be recognized in Pagan story. Thus the opinion prevalent among the ancients, that mankind originally inhabited the earth in a golden age, however the notion was modified by the fancy of early poets, was evidently derived from traditions respecting the paradisiacal state described by Moses. New support from heathen tradition to the earliest narratives of Scripture occasionally springs forth, even at this late period of the world, from unforeseen and singular quarters. From a recent publication of a Voyage to New Zealand, performed in the years 1814, and 1815, we learn that the inhabitants of that remote island not only hold, that the human race descended from a single pair; but likewise, that the first woman was created from one of the ribs of the first man*. A subsequent passage in the same work is not unworthy of notice in connection with a later portion of the inspired records of our religion. "The New Zealanders make it an invariable practice, when a child is born among them, to take it to the tohunga, or priest, who sprinkles it on the face with water from a certain leaf,

* Nicholas's Narrative of a Voyage to New Zealand, London, 1817, vol. i. p. 59.

which he holds in his hand for that purpose. And they believe that this ceremony is not only beneficial to the infant, but that the neglect of it would be attended with the most baneful consequences. In the latter case they consider the child as either doomed to immediate death; or that, if allowed to live, it will grow up with a most perverse and wicked disposition, Now that this is a kind of baptismal ceremony, no one, I think, will dispute*."

There is another fact, or more properly a class of facts, of the same nature with the preceding traditions, and of kindred force, which has been amply developed and illustrated by learned men; the memorials, namely, which are extant in the most ancient of the profane historians respecting many events related in the Old Testament, and in the more early of its component parts. These memorials, though commonly obscuring and distorting the original events by extravagant additions and fabulous misrepresentations, retain with a sufficient degree of exactness some features, by which the archetypes may be recognised.

* Nicholas's Narrative of a Voyage to New Zealand, London, 1817, vol. i. p. 61.

In the eleventh chapter of Genesis, it is declared, that subsequently to the deluge, *the whole earth was of one language, and of one speech;* and, that in consequence of the presumptuous designs of men in the erection of the Tower of Babel, God was pleased *to confound their language, that they might not understand one another's speech, and to scatter them abroad from thence upon the face of all the earth.* In this confusion *of the language of all the earth,* and in the contemporaneous dispersion of mankind, it would naturally ensue, and the event appears to have been one of the divine purposes in the transaction, that the persons who found themselves possessed of the same language would separate from those whose speech they could not understand, and would associate together in a distinct settlement of their own; and that the different bodies, thus divided each from each, would establish themselves in different regions, and become the parent stocks of as many different nations, of which each would speak a language peculiar to itself. Whether any one of these bodies was left in complete possession of the original language of all men, the sacred writer does not pronounce. But it seems not

unreasonable to suppose, that fragments of this original tongue would survive more or less abundantly in most, if not in all, of the new dialects. And the expression employed by Moses in his narrative, that God did *confound* the language of the builders, may naturally seem to imply rather that the primeval tongue was miraculously broken and disjointed and confused by alterations, modifications, and additions, into many other tongues reciprocally unintelligible to the several speakers; than that it was precluded from forming an ingredient in the composition of the new tongues, and that every trace of its existence was totally extinguished. Even therefore at a period so remote as is the present day from the epoch of the building of Babel, we might venture to expect that, in many of the languages severally prevalent in widely separated countries, vestiges of one common original might be discovered. Such vestiges have been remarked by various writers; but, probably by no enquirer have they been detected and recorded with the particularity of research, and the copiousness of example, with which they have been exhibited in a recent work by Mr. Townsend. His columns of comparison include a

large number of distinct languages; and relate to no inconsiderable proportion of the habitable surface of the globe. And if, in the multitude of his alleged instances of coincidence, some may seem doubtful, or may even be judged by some readers fanciful and erroneous; the mass of clear coincidences appears so great, that it is impossible to be fortuitous. Now, if we would render justice to the argument which these points of similarity, attesting a common origin between so many scattered languages, furnish to the truth of the Scriptures; we must bear in mind, that the force of the argument consists, not merely in the existence of the resemblances after the vicissitudes, and collisions, and migrations, and revolutions, of nations during the lapse of four thousand years; but, in this eminently important circumstance also, that the necessary scantiness of very ancient languages leaves a proportionally small range, within which coincidences may take place. When sciences were little known, when manufactures were rude and few, when commerce was confined to a slender catalogue of articles, when government was in its infancy, and politics were not born; of how large

a portion of words corresponding to those which are at this day current in Great Britain would language be destitute!

Farther; the concurrence of all ancient history, deserving of the appellation, for, I presume, that I shall not be expected to concede that title to the exploded absurdities of Hindoo chronology, traces back the origin of all nations, and the commencement of arts and sciences, to a period not more remote than that which is assigned by Moses. Pagan philosophy pronounces the same verdict. The question of Lucretius—

"Si nulla fuit genitalis origo
Terrai et cœli;
Cur supra bellum Thebanum et funera Trojæ
Non alias alii quoque res cecinere poetæ?"—

Is as decisive against the existence of the world antecedently to the Mosaic date of the Creation, as it is against its existence from eternity.

In the second commandment, the Deity solemnly affirms, that among the rules, according to which it is the determination of His wisdom to exercise His moral government of the world, are the two following: that He will visit,

temporal evils, the iniquity of the fathers
on the children, unto the third and the fourth
eration of them who hate Him; and that he
shew mercy, for the sake of the righteous-
s of the parents, upon thousands, upon a long
indefinite succession, of them who love Him
keep his commandments. That the evils
which the children shall suffer through the
of their parents, are limited to the present
is indisputable: because temporal judgments
l, in all the other laws delivered to the Jews
very prominent a place as a sanction for se-
ng the observance of the laws; because in
r passages of Scripture it is emphatically
red, that no individual shall be punished in
life to come but for his own iniquity; and,
use it is no less plainly averred in the Sacred
itings, that through the atoning sacrifice of
Redeemer, who *by the grace of God tasted
h for every man*, complete means of Salva-
are actually placed within the reach of the
al power of every man. And it may far-
be observed, that, as each of such judicial
s, affecting the children of unrighteous pa-
s, may be specially employed in the hand of

Omnipotence as an instrument for promoting the religious improvement and the final salvation of the sufferer: the dispensation is not only freed from the charge of injustice or hardship, but may be pointedly characteristic of benignity and wisdom towards the very sufferers, no less than in its manifest tendency to restrain the parent in his career of wickedness by adding to every other check the force of his natural affection for his offspring. Of the benignity and the wisdom of God in his appointment of blessings in the way of ordinary consequences to the posterity of pious parents, it is not requisite to advance any proof. From the divine declarations, turn to the regular course of the world; and behold them verified and established in the daily and hourly progress of human events. Behold the extravagance of a parent entailing poverty, and his intemperance a feeble and diseased constitution, on his descendants. If he proceeds to offences against the laws of the country, and suffers some ignominious punishment, or a pecuniary penalty, or the loss of life; behold his children pursued by the ignominy which has fastened on the father, or precluded from the

property which they would have inherited from him, or deprived of the ordinary benefits and the customary continuance of parental protection. Behold in the reverse of the picture, the posterity of the good man reaping, in a healthy frame, in affluence, in general estimation and honour, fruits of the virtues of a religious ancestor. Nay, the public and voluntary institutions of mankind recognize and adopt the two principles; and thus attest the equity and the wisdom of the divine administration. In the case, for instance, of treason, for it is not necessary to dwell on inferior though equally just exemplifications, our own laws have superadded to capital punishment the forfeiture of property, and the extinction of hereditary nobility. And on the man who has distinguished himself by national services, they confer, through the discretional agency of the Supreme Magistrate, the titles and the privileges which are to ennoble, not only the meritorious individual, but his latest posterity.

It is a part of the established order of human affairs, that benefits and disadvantages, each not unfrequently of large amount, result to individuals, or even to communities, from the pro-

ceedings of another person, who, in the action from which the desirable or the injurious consequence flows, neither wished, nor considered, nor foresaw the consequence, but was wholly engaged in prosecuting a separate object of his own. A merchant, for instance, accumulates wealth at Calcutta; and on his death enriches an heir at law in the Orkneys, of whose kinsmanship, and of whose existence, he knew nothing. Take an opposite example. A highwayman meets with resistance, and shoots the traveller dead. Or a mason snatching at his trowel which a comrade was hurrying away, forces a stone from the scaffold, and crushes the passenger below. In either case, the event may have highly important and also lasting effects on parties at a distance, and unknown to the agent. It may have removed a man who was a delight and a blessing, or a torment and a curse, to his connexions, and to his neighbourhood. Had the person destroyed been a prince or a king, the consequences might long have influenced the condition of nations. Concerning such events and their results, Natural Theology is competent to pronounce that, as the world is under the superintendence of the

moral government of God, these events are to be regarded as permitted by Him for this reason among whatever others, that those particular consequences might ensue: that while the agent was left in the free exercise of his own moral agency, God so regulated collateral circumstances, as to educe certain results, which, in His wisdom, He had determined to bring to pass. Whether the robber killed, or wounded, or missed, the traveller, affected not his own guilt. Whether he attacked the particular traveller, or the next that came along the road, affected not his guilt. The guilt was in the state of the heart. But the actual event was the mode of producing the actual consequence. We turn to the Bible, and mark in various and in most momentous events there developed, an accordance strictly analogical with the preceding statement. On the one hand, we see the daughter of Pharaoh, while humanely rescuing an infant from destruction, instrumentally providing for the people of Israel the means of deliverance from the bondage of Egypt. On the other hand, we perceive the King of Assyria left to follow the stimulus of his wilful ambition and his thirst of conquest,

and permitted to ravage and to subjugate many surrounding countries, unconscious that he had been employed as the instrument to execute on sinful nations the vengeance of the God whom he blasphemed. *Against the people of My wrath will I give him a charge to take the spoil and to take the prey, and to tread them down like the mire of the streets. Howbeit he meaneth not so, neither doth his heart think so; but it is in his heart to destroy, and cut off nations not a few. For he saith, "By the strength of my hand I have done it, and by my wisdom, for I am prudent. And my hand hath found as a nest the riches of the people, and as one gathereth eggs that are left, have I gathered all the earth, and there was none that moved the wing, or opened the mouth, or peeped." Shall the axe boast itself against him that heweth therewith? Or shall the saw magnify itself against him that shaketh it?** In other parts of the Old Testament, similar explanations are conveyed respecting the instrumental agency of Nebuchadnezzar. In the New Testament, we find the inveterate worldly-mind-

* Isaiah, x. 5—15.

lness and the deliberate perfidy of Judas, sins or every particle of which he alone was chargeble, permitted, or, it may be, as to their *direction* in some degree influenced, so to operate as o accomplish the delivering of our Lord into he hands of His enemies, according *to the determinate counsel and fore-knowledge of God**. In the same manner we hear the Apostles declaring in a solemn address to God concerning he instrumentality of other obstinately wicked characters; *Of a truth against Thy Holy child Jesus, whom Thou hast anointed, both Herod and Pontius Pilate, with the Gentiles and the people of Israel, were gathered together for to do whatsoever Thy hand and Thy counsel determined before to be done*†. And subsequently, we behold the Roman armies, intent solely on their own plans of aggrandizement and revenge, pouring forth with unwitting ardour the terrors of divine justice on the city which had crucified the Lord of Life; and commencing the fulfilment on the Jewish people of its own most tremendous of imprecations, an imprecation yet

* Acts, ii. 23. † Acts, iv. 13, 14.

unexhausted after seventeen centuries, *His blood be on us, and on our children!* In all such examples we read a verification of the inspired testimony concerning the dealings of God in the government of the world; *Surely the wrath of man shall praise Thee: the remainder of wrath shalt thou restrain.* The evil passions of men shall be overruled into instruments of working into completion the glorious purposes of the Most High; and against His glorious purposes the residue of those passions shall be rendered unavailing*.

It is a circumstance also of frequent recurrence in worldly affairs, that a person, in the pursuit of some desirable object which he fails to secure, unexpectedly attains some other object of far greater importance. Our imagination may easily frame to itself many cases of that description. In exact accordance with this feature which reason and experience discover to us in the divine administration, the Scriptures set the Deity before us as acting by the same rule in various instances which are there recorded;

* Psalm lxxvi. 10.

id as acting at times by it even in his miracu-
us interpositions. Saul, engaged in quest of
is father's asses, did not find them; but was
ivested with a kingdom. The cripple, who at
ie gate of the Temple asked alms from Peter
nd John, did not obtain money, but very dif-
erent relief. *Silver and gold have I none: but
uch as I have, give I thee. In the name of Jesus
Christ of Nazareth, rise up and walk.*

Farther; all the natural arguments for the con-
inuation of human existence after death bear
witness by analogy to the Revelation, through
which *life and immortality are brought to light
by the Gospel.*

There is a strict and widely comprehensive
analogy between reason and revelation. Each
brings forward evidence suited and adequate to
the conclusions which it seeks to impress. But
each demands that its evidence in order to be
thoroughly understood and fairly appreciated,
should be investigated with attention, with pa-
tience, with candour: and thus distinguishes and
recompenses the considerate and honest enquirer
by the discovery of beneficial truth; and aban-
dons the idle, the precipitate, the presumptuous,

and the obstinate man to the consequences of the error which he will not take the proper methods to avoid. Neither reason nor revelation, in their most convincing deductions, overwhelm the mind and the will with irresistable influence. They leave the individual, as before, a moral agent, with unfettered power of determination as to the course which he will pursue. Again, neither reason, nor revelation, while each discloses as much knowledge respecting its own object as the welfare of man requires, is commissioned to dissipate obscurities which do not injure, nor to gratify curiosity which utility does not sanction and modesty ought to restrain. The mode in which heat and moisture contribute to the growth of the leaf, and the elements which constitute the attraction of gravity, are as little known as the native forms of angels, or the occupations of the blessed in Heaven. The inexplicabilities of reason stand in affinity with the mysteries of revelation. Moreover, reason and revelation concur in refusing any privilege of exemption from their respective jurisdictions to human rank or station. Each requires every individual, from the palace to the cottage, to re-

cognize her authority, to hear, to study, and to obey her dictates. It was truly said to a king, that there is no royal way to geometry. And it is a truth equally sure, and infinitely more awful, that there is no royal way to salvation. The sovereign and the peasant, if they would prosper, each in his worldly sphere, must equally follow the rules of reason, must equally strive to profit by wise counsel. The sovereign and the peasant, if they would attain to life eternal, must equally seek it through the grace of God in our Lord Jesus Christ; must equally shew forth, in habitual and persevering holiness, the faith which worketh by love. If Princes and great men of the earth pretend that they may take to themselves the privileges of dignity without its privations, the roses without the thorns; if they hold forward elevated station as a plea for criminal self-indulgence, as an authority for a single breach of one of the least of the divine commandments; they are cutting themselves off from an inheritance in the kingdom of Heaven no less decidedly than the peasant, who should allege the hardships of poverty as a vindication of some favourite habit of unrighteousness.

A close analogy is also discernible between the mode which reason shews that men must employ in order to acquire worldly objects of moment, and that which the Scriptures prescribe as essential to the attainment of happiness in another life. It is not merely that diligence, exertion, and perseverance, are indispensable in either pursuit; but that another quality also, less obvious perhaps beforehand, but of incalculable importance, is common to both; namely, self-denial. In both pursuits there will continually arise a necessity for curbing present wishes, for renouncing present indulgences, for bearing present sacrifices and present sufferings, for the sake of securing a distant recompense.

We may discern constantly and universally that the suggestions of wicked individuals form a part of that permitted instrumentality, by which God is pleased to allow other men to be put to the proof as to their steadfastness in obedience to Himself. It is equally a truth established by experience, that persons who have proceeded to great lengths in sin, and have confirmed themselves in unrighteous habits, are frequently seen actively solicitous to allure an unsuspecting and

a less guilty associate into their own practices and principles; and display unequivocal tokens of satisfaction, when their machinations are successful. These facts corroborate by the full force of analogy the communications imparted in the Scriptures concerning the agency and the eager assiduity, of evil spirits for the purpose of drawing every human being into iniquity and perdition; and especially of the leader of those apostate angels, the author of sin and of misery among the hosts of Heaven and the inhabitants of earth.

Again, the Scriptures aver that God will bring every work into judgment, with every secret thing, whether it be good or whether it be evil; that, at the great day of final retribution the Dead, small and great, shall stand before God; that God will render unto every man according to the works done in the body; that the wicked shall go away into everlasting punishment, and the righteous into life eternal. Such, it is declared, shall be the consummation of the moral government of God, respecting the human race. Now if the Scriptures which promulgate these declarations be the word of God, who is the au-

thor also of the established laws by which in his providence He regulates the course of human events, and governs the world; what are the consequences, which analogy would lead us to anticipate as severally annexed by Him in the present life to good and to evil conduct? We should not be authorised to assume that an immediate or an exactly proportioned retribution of advantage or of disadvantage, of pleasure or of pain, would be appended in the present state of existence to the good or to the evil conduct of the individual. For we should easily apprehend the probability, or the possibility, that many wise and gracious purposes of moral discipline and probation might be better answered by a different arrangement: and that every transient inequality might be thoroughly adjusted in the closing account. But we should be completely warranted to expect, that in the general laws constituted by the Deity, and in His general dealings with mankind, He would shew himself not indifferent to diversities of character; that ample and continual indications would be visible of His approbation of virtuous deeds, and of His disapprobation of wickedness: that virtue

would be designedly encouraged by being gifted with tendencies to promote the present happiness of men; and that wickedness would be branded with equally indelible tendencies to bring present tribulation upon its followers. Contemplate the state of human society, contemplate the natural consequences, as exemplified in this life, of human actions; and behold your expectations justified, behold the analogy demonstrated*. In the constant tendency of righteous conduct to promote the health, the estimation, the worldly comforts, of the good man; to attract to him friends, to conciliate enemies, to win pity and sympathetic assistance in distress, to diffuse under the shadows of earthly sorrow internal serenity, and hope, and joy, the divine approbation is displayed. In all the opposite tendencies of iniquity, we mark the manifest displeasure of God. In the one case, He proclaims by the voice of Natural Theology, that *Godliness has the promise of the life which now is;* in the

* This instance of analogy, and that which will next be produced, are among those which have been developed and argued with particular force by Bishop Butler.

other, that *there is no peace to the wicked:* in both cases, that the imperfect retributions of earth are respectively the emblems and pledges of heavenly mercies and of merited perdition.

The Scriptures aver, that the ransom of man from the punishment of sin, the sanctification of his corrupt nature, and his restoration to the divine favour and to the prospect of everlasting happiness, are exclusively purchased by the voluntary mediation, the atoning sacrifice, and the continued intercession of our Redeemer, the Lord Jesus Christ. The characteristic features in this plan of salvation, by which God is pleased to bestow upon His guilty creatures spiritual and eternal blessings, are analogous to the mode which, in His general administration of the world, He sees fit to appoint for the conveyance of temporal benefits, the agency, namely, and the voluntary instrumentality of other men. Our preservation through infancy and childhood, the whole course and variety of our education, our establishment in our respective lines of life, a large proportion of our security, of our success, and of our comforts in those lines, happiness in domestic relations, the accomplishment of our plans respect-

our children, the tranquillity and the safety
ɔur declining years, are owing to the willing
e and the kind intervention of others for our
lfare. Frequently also we learn by deep ex-
ience, when by misconduct we have brought
'selves into temporal evils, that neither sorrow
l regret for the past, nor promises and pur-
ses of amendment for the future, will remove
m us the temporal consequences naturally an-
ted to transgression; and that the only method
which they can be turned aside is the inter-
sition, the undeserved interposition, of a friend,
o by personal labour, and solicitude, and ex-
ion, and sacrifices, who, in other words, by
tting himself essentially into our place as to
ıch of the distressing effects of the evils to
ıich we have rendered ourselves subject, and
spontaneously bearing it on our behalf, may
ıieve our deliverance. Our Saviour Himself
ɔresents the love which induced Him to give
mself a sacrifice for men, as analogous in
ıd, infinitely as it was superior in degree, to
man friendship. *Greater love hath no man
ın this; that a man lay down his life for his*

*friends**. The infinite superiority in degree is marked by an Apostle.—*Scarcely for a righteous man will one die; yet peradventure for a good man some would even dare to die. But God commendeth His love towards us, in that, while we were yet sinners, (enemies* to God *by wicked works,) Christ died for us*†. The institution of expiatory sacrifices prevalent throughout the world, in all ages, and under so many different and jarring forms of false religion, demonstrates a general and natural impression among men, that sorrow for sin was unable to make atonement and to avert punishment; and that recourse was to be had to the blood of a victim offered on behalf of the transgressor, and suffering in his stead. For, though I think it is unquestionable, that the early introduction of sacrifices, among the heathen nations, was derived from a primeval appointment of sacrifice by the Deity immediately after the fall of man, and exemplified by the sacred historian in the case of Abel; since no other cause appears to me ade-

* John, xv. 13.

† Romans, v. 7, 8. Col. i. 21.

quate to account for the origin of sacrifices, and particularly for the general concurrence in the custom of *burning* the victim; yet the rapid adoption and the universal diffusion of the rite speak its accordance with feelings, blended, it may be, among idolators, with gross ignorance and error, yet congenial to the human mind. And impossible as it is, *that the blood of bulls and of goats can take away sin;* the practice of presenting before the offended majesty of Heaven these inefficacious emblems, these undiscerned types and shadows, bears analogical attestation to that Divine Mediator, who, in the fulness of time, made by His one oblation of Himself once offered a full, perfect, and sufficient sacrifice, oblation, and satisfaction for the sins of the whole world.

Another, and a very important example of analogy between the arrangements of God as to the gift of things temporal, and of things spiritual, may be derived from the consideration of grace bestowed by the Holy Spirit.

The scriptural doctrine concerning the influence of divine grace includes, according to my apprehension, the following positions.

That divine grace, as the efficient cause by which the heart of man is to be changed from its naturally corrupt state into a holy state, is indispensable to Salvation. *In my flesh dwelleth no good thing. Without me ye can do nothing.*

That it cannot be in any respect or degree claimed as a debt to human merit. *Otherwise grace would no more be grace.*

That it will assuredly be obtained by every man who seeks it in the way prescribed in the Scriptures.

That, for the sake of the meritorious sacrifice of the Lord Jesus Christ, God freely bestows in the first instance, upon every man, an incipient portion of grace sufficient to countervail the natural repugnance and inability of man to turn from sin and to seek for divine grace. Otherwise, through whatever labyrinths the circuit of objection may run, the inevitable conclusion is, that the will of the individual cannot become disposed to seek divine grace, and consequently, that he is absolutely shut out from obtaining it.

That he who improves grace received, shall receive more, and shall have abundance; and

hat from him who does not improve it, the grace which he has received shall be taken away.

These revealed arrangements of the Deity with respect to the need, and the donation, of the grace of His Holy Spirit are manifestly and strongly analogous to the arrangements, by which it has pleased Him to regulate the gift of His temporal blessings requisite to men for the purposes of the present life; as the gifts of food, of raiment, of competence, of friends, of a good name. Setting apart for subsequent observation any instance of seeming contrariety, the real force of which will thus be correctly appreciated, we may affirm generally, that these and other requisites to life and to a sufficiency of reasonable comfort are commonly found to have been placed by Providence within the reach of every man through the use of his natural powers; to be actually attained by those persons, who employ in each case the means respectively appointed for the acquisition of the object; to be obtained with progressive facility and abundance proportioned to the faithful application of improved powers, and enlarged means; to be endangered,

sustain by analogy, the actual attainability by every man of grace unto salvation, a universal, and, I apprehend, an irrefragable answer may be returned; namely, that the attainability as to things temporal, and the attainability as to grace unto salvation, are severally commensurate with the period to which they severally relate, and thus demonstrate the analogy not only to be real, but to be perfect. The period during which temporal requisites are important to an individual, is simply the time during which it is the divine will that he should live upon earth. To the end of that period they are rendered by Providence attainable to him. The period to which the importance of attaining divine grace relates, is eternity. For the span, be it longer or shorter, of mortal existence appointed to each individual, God enables him to attain all temporal things essential to the beneficial completion of that span. And for the attainment of happiness in a state which is never to end, the same God of mercy bestows upon him freely and fully, through the atoning merits of our Redeemer, the capacity of obtaining grace unto life everlasting; and the

essential gift at the outset of a portion of grace, sufficient to countervail the reluctance and the inability of a corrupt nature.

CHAP. XIII.

CONCLUSION.

If some letters, constituting a particular word, as the five which compose the word *Table*, were delivered to a person entirely uninformed respecting the mathematical doctrine of chances; and he were desired to draw them one by one from a bag, and to arrange them in the order in which he should extract them, until they should have presented themselves in the proper succession for spelling the word *Table;* he would form before-hand a very inadequate conception as to the large number of the trials which it was probable that he must make before he would attain his object. From a similar cause men, who have not been in some measure led to consider in detail the nature of evidence, and the circumstances which contribute to its force, are imperfectly aware how great is the strength added to testimony by the concurrence of attestations and cor-

roborations of different kinds. They are not sufficiently apprised how very numerous are the chances against the general concurrence of such attestations and corroborations, if it be not inevitably produced by fact and truth. From the extreme improbability of such concurrence in any other case results the weight, which in a court of justice is assigned to circumstantial evidence. Suppose, for example, that a set of housebreakers enter a dwelling by night; that they are disturbed in the midst of their operations, decamp with a part of their intended booty, and fly in separate directions. Shortly afterwards a peasant, whom business has sent early abroad, perceives through the twilight of dawn a man running across a field, half a mile from the house, and running in a direction from the house; watches him into a cottage; and the next morning, hearing of the burglary, mentions the particulars which he had noticed. The culprit is apprehended on suspicion. In the mean time, under the window, by which the robbers had precipitately retreated, and amidst a confusion of footsteps on the soil, a fair print of a shoe is observed. A shoe from the foot of the suspected

man is brought. The print is found exactly to correspond with it in size, and in shape. In the heel of the shoe are eight nails. Eight similar impressions, similarly situated, appear in the print. In the shoe, the third nail on the left side of the heel has the head split. In the third nail-mark on the left side of the heel of the print is a linear prominence corresponding with the indentation in the iron. All these circumstances are verified by oath before the jury. Reflect now on the immensity of the chances against these concurrences, if the man were not one of the gang. Consider the chances in the case of each of the circumstances singly. How slight was the probability that, on that particular morning, at that particular moment, on that particular spot, the peasant should be at hand, and should notice the fugitive. How easily might the individual print of the shoe have been confused among the other footsteps! Amidst the varieties in the shape, and in the size, of the human foot, how small is the chance that the shoe of an individual will precisely accord with a specific print seen under a window! How many chances exist against there being nails, and eight nails, in an individual shoe! How

many chances against the exact coincidence of eight nails with the position, and with the shape, and with the magnitude, of eight nail-marks in a footstep! How many additional chances against the circumstance of one of the nails having its head split! How many still additional chances against the split nail being the third on the left side of the heel, as the print on the soil required! How vast the multiplication then of chances against the concurrence of all these circumstances, in the case of any individual who had not been concerned in the robbery! Let it be supposed that through confessions made by the accomplices of the culprit, or by the discovery in his box of a spoon belonging to the plundered family, *direct* and conclusive evidence of his guilt were brought forward on his trial. Still I would ask, whether every juryman would not feel himself powerfully supported in his verdict of guilty by the concurrence of the *circumstantial* evidence which has been specified? I would ask whether, in his subsequent reflections, he would not be thankful that the rectitude of the verdict, which he was constrained by direct evidence to pronounce, was corroborated to his

conscience by the collateral aid of the *circumstantial* testimony?

Christianity, though resting on its own direct evidence its claim to universal reception, is entitled to the benefit, and is powerfully strengthened by the support, of collateral and concurrent testimony.

If I may be permitted to suppose myself to have been so fortunate in the preceding chapters as, on the whole, to have made good the general argument in each: I would request the attention of the reader to the extent of the collateral, circumstantial, and uniformly concurrent testimony, which, on that supposition, Natural Theology has been shewn to bear to Christianity.

The earth then has, in the first place, been proved, as to its exterior strata, to be at present in a state of total confusion and dislocation, manifestly produced by convulsions of extreme violence; convulsions accompanied by the general destruction of the living inhabitants of the surface, with the exception of those which might be preserved by a special interposition on the part of the Deity. The great instrument, employed in this operation of ruin, plainly was a

universal deluge. This reduction of the earth to its actual state directly contrary to the harmony, regularity, and order by which all the other known works of God, from the highest to the lowest, are characterised, and the concomitant destruction of animated existence, can be ascribed by natural reason to no other cause than the indignation of God against mankind, the only moral agents on the globe: an indignation not to be explained otherwise than by disobedience on their part to His commandments*.

Secondly. The surface of the earth was mercifully so arranged through the instrumentality of the deluge, withdrawn by a gradual but somewhat rapid retirement, as to furnish to the survivors of the catastrophe, and to their descendants, a habitation commodious in itself, and suited to the several purposes of their existence, whether purposes of penal discipline, or of merciful encouragement, in the condition and under the dispensation now appointed for them†.

Thirdly. The mineral contents of the earth are, in their nature and in their position, such

* Ch. ii. † Ch. iii.

as to be consistent with the condition of a race of beings, fallen through transgression, yet not excluded from hopes and prospects of mercy: but, are not such as we can conceive to be consistent with a state adapted to beings remaining holy, and in the full possession of the divine favour*.

Fourthly. The large proportion which the collective amount of torrid deserts and frozen wastes bears to the area of dry land on the globe, and the extent of the havock inflicted on human life and happiness, by volcanoes and earthquakes, do not comport with the supposable condition of a holy race of beings; but entirely accord with the state of beings fallen through sin, and stationed partly under a penal discipline, partly under a dispensation of mercy†.

Fifthly. The objects provided on the surface of the earth for the use of man, as plants, trees, and other materials for sustenance, clothing, shelter, and accommodation, together with the animals fitted for domestic use, and for the alleviation of human labour, are, in their several

* Ch. iv. † Ch. v.

qualities, and also in the actual degree of abundance, such, as to be accurately adapted to guilty beings placed under the discipline and the dispensation which have been stated*.

Sixthly. The human frame, in its structure, in its powers, in its weaknesses, in its necessities, in its ordinary measure of health and sickness, and in the precariousness and the shortness of mortal existence, accords with the condition of man as a fallen creature, stationed in a world where penal discipline is combined with indications and means of mercy. In its structure also, abstracted from those inlets to suffering and those infirmities subsequently superadded on account of transgression, it appears evidently to have been suited to a paradisiacal state. But, viewed in connexion with those inlets to suffering and those infirmities, it is not accordant with any supposable situation of beings stedfast in holiness, and possessing the unclouded favour of their God†.

Seventhly. In the tendencies and the faculties of the human mind; tendencies, demonstrating

* Ch. vi. † Ch. vii.

by hourly experience to reason and observation a nature radically corrupted, a nature, however, capable of being restored by divine grace, as examples of characters transformed under that sacred influence testify, to the love and the practice of righteousness; faculties, bearing amidst their debasement and their limitations marks of their high origin, but in their exertions exposed to continual hazard of disappointment, and retaining a feeble and transitory hold on their acquisitions; we read the same disclosures respecting man, his condition, and his prospects, which from the antecedent lines of argument we have already deduced*.

Eighthly. While in the various branches of human occupation tokens of the divine benignity are intermingled in a proportion sufficient to justify the hope, that the guilty race is not excluded from mercy: the amount of labour, of pain, of solicitude, of precariousness, of disappointment, is so great as to be inconsistent with any conceivable state of holy beings, and evidently to bear a penal character†.

* Ch. viii. † Ch. ix.

Ninthly. All the preceding propositions are strengthened by the argument from negation; by the absence, namely, or the practical non-existence, of any fact contrary to any of them*.

Tenthly. The situation of man upon earth, marked, on the one hand, with the impress of penal inflictions for sin, and on the other, with signs of mercy and means of grace, is in every part stamped with the character of moral discipline. This moral discipline is in perpetual and universal operation; and is specifically suited, not only to inculcate and to enforce those general verities which are common to true religion under every dispensation, but to guide and prepare men profitably to receive the particular dispensation, through which it was ordained in the divine wisdom that mercy should be conveyed†.

Eleventhly. The number, the variety, the precision, and the importance of the coincidences, resemblances, and analogies, existing between the actual state of things among mankind, as it is ascertainable by observation, and the Scriptures, attest the truth of the sacred volume,

* Ch. x. † Ch. xi.

and pointedly corroborate the doctrines of the Gospel*.

Such then appears to be the evidence, preparatory as well as collateral, which Natural Theology, having first established by other arguments the existence and various Attributes of the Deity, brings more particularly forward in confirmation of the fall of man, and of the dispensation which the divine mercy has appointed for his redemption. The concurrence of that evidence, in its different branches, with the discoveries of Revelation, has been exemplified in the antecedent chapters severally appropriated to each branch in succession. To that subject, therefore, it is not necessary to revert. My present purpose is to request the reader to consider how vast was the number of previous chances, if on circumstances connected with the appointments of God we may presume, in accommodation to human modes of expression and human ideas on ordinary topics, to employ the term chance; how vast was the proportion of previous chances against this concurrence between so large a mass

* Chap. xii.

of visible and undeniable facts, on the one hand, and revealed disclosures on the other, if the Scriptures which contain the disclosures were not the word of God. In other words, let it be judged whether, if the Christian Religion, and the alleged proceedings on the part of man for the consequences of which that religion professes to introduce a merciful remedy, had been *cunningly devised fables*, there would have existed even the lowest degree of rational probability, that in the state of the earth as to its exterior strata, and as to the form and arrangement of its surface, and as to the nature and the position of its mineral contents, and as to the extent of its uninhabitable tracts, and as to the ravages of volcanoes and earthquakes, and as to the objects, animate and inanimate, provided for the use of man; that in the human frame, in its structure, in its powers, and in its necessities; that in the human mind, in its tendencies and in its faculties; that in the amount of labour and of sorrow, and of precariousness in all occupations; that in the moral discipline universally and inevitably operating upon each individual; that in the number and the variety of detached yet conge-

nial particulars in human condition, which display clear analogies and correspondences between the actual state of things among mankind and the Scriptures: that not only in some of these points and topics, but in each and in all of them, Natural Theology, strictly confining herself within her proper province, reasoning from facts open to common observation, and in the whole range of her enquiries throughout this multiplicity of subjects meeting no fact inconsistent with the conclusion to which, by common concurrence and convergency, the result of every division of her investigation directed itself, should attest the truth of Christianity.

In consequence of a diversity of mental habits and predilections, different persons are not always found equally impressible by the same kind of evidence. On a given subject, some men lend more willing attention to one branch of of testimony, others to another. Thus, in contemplating the direct evidence of Christianity, on some minds the argument from miracles is the most influential; on others, the argument from prophecy; while others, equally rendering justice to the force of both these arguments, feel,

if not a stronger conviction, yet a more endearing assurance, of the truth of the Gospel, in the universal and complete suitableness of the blessings which it reveals to the condition of fallen man. It is not merely therefore by the collective amount of the testimony, which Natural Theology bears to the Christian Revelation, that the value of her assistance is to be appreciated. The worth of her aid is greatly enhanced by the variety of her attestations. Of those attestations one subdivision may be more congenial with the reflections of one enquirer; another with those of another, or, even with the train of thought become the most attractive at a subsequent period to the former individual. In the mean time, like the component quotas of a confederate army, all the subdivisions stand accoutered at their posts, each prepared to co-operate according to its character and its strength in repelling the assaults of the enemy, and in upholding the general cause which they are appointed to sustain.

In many cases in which men are required to act upon satisfactory evidence laid before them, the recollection of the evidence is, and justly

may be, transient. A person is desired, for example, to attend in the ensuing week a meeting to be held at the neighbouring town on some incidental matter of business. Facts are alleged to shew the expediency of his attendance. He examines into the evidence of the facts, is fully satisfied as to their reality, acquiesces in the propriety of being present, attends the meeting, sees the business settled, and dismisses it from his thoughts. A year afterwards, were he questioned as to the grounds of his attendance, would it be strange if he should reply, that the point to be decided had been to himself unimportant; that he had thought no more of it; and that he retained but an imperfect remembrance of the particulars in the statement by which he had been induced to be present? But had the subject on which he was to decide been one, not of a fugitive nature and of trivial concern, but of perpetual and vital interest; to guard against the tendency of evidence to fade from the mind would have been a consideration of serious importance. We know how great is the difference as to practical effect between such an impression of evidence, as, though adequate to maintain a

cold belief of the truth to which the evidence relates, has lost by imperceptible decay much of the liveliness and the distinctness of its traces; and one which, by being frequently and as it were necessarily refreshed, preserves them in their original depth and sharpness. Respecting a system of truths which should bear upon every action of life, and claim an influence over more than mortal existence, it would be a signal act of benignity in the Supreme Being if he should vouchsafe to provide in circumstances and objects constantly recurring to the senses and the mind, and without the possibility of being overlooked, mementos and revivals of any material part of the evidence by which the certainty of the truths was established. Such a system of truths is Christianity: and such is the provision which, even through the medium of Natural Theology, God has mercifully arranged for the purpose of upholding that influence in uninterrupted and undiminished operation. Whether a man contemplates the structure of his body, or the conformation of his mental dispositions and faculties; whether he turns his thoughts to medicine, or to geology, or to other

branches of science, whether he addicts himself to agriculture, or to commerce; whether he feels in personal experience the troubles of life, or speculates upon them in his closet: he is in perpetual and inevitable contact with testimony to the truth and to the momentous value of the Christian revelation.

By various modes of connection the effect of association extends to evidence. Attestations flowing from objects in themselves attractive bring recommendatory credentials. It is an engaging and therefore a merciful feature in the testimony of Natural Theology to Christianity, that the attestations are in part connected with the grandeur and the beauty of the visible works of God; with the sun going forth as the emblem of his Creator's benignity to shine on the evil and on the good; with the genial shower that descends on the fields of the just and of the unjust; with the universal face of creation displaying, in characters so obvious and decisive as to leave the Gentile world without excuse, not only His eternal power and Godhead, but his inherent and uncompromising holiness, and the consequences which, under his moral government,

must respectively attend obedience and transgression.

The guilt of Infidelity, as of other sins, may be aggravated by circumstances. As to sins in general, this position will be admitted. But there are persons who deny that Unbelief is a sin. They maintain, that belief is analogous to sight: that, if an object be distinctly placed before the eye, and be contemplated, the perception of the object necessarily follows: that, if a statement accompanied with adequate evidence be presented to the mind and be considered, for they profess not to justify contemptuous inattention, belief ensues as a necessary consequence: that in believing on adequate evidence there is nothing worthy of praise, nor in disbelieving when the evidence is unsatisfactory is there any thing to blamed. Now it is to be observed, that men of the class here described are commonly remarkable for the promptitude and the profuseness with which they urge against a large portion of the world the charge of prejudice. What do they mean by Prejudice? The obstinate belief of certain tenets on inconclusive testimony; in other words, a perverse refusal to believe any con-

trary tenet presented for their examination by their censurers, and accompanied, as their censurers affirm, by conclusive evidence of its truth. It appears then that, in the opinion of these very censurers, belief is not exactly analogous to sight: and that it is very possible to have unwelcome truths presented to the mind in conjunction with adequate evidence, and yet to disbelieve them: and that unbelief may be the just object of blame. The believer in Revelation contends that Infidelity is sin, and that it is sin for these special reasons; because the unbeliever either will not examine, or will not examine fully and with a candid and fair mind, the conclusive evidence laid before him in proof of the truth of Christianity. He cannot say less. For not only does he behold plain facts justifying the assertion, but in the volume which he recognizes as the word of God, he reads the express averment: *This is the condemnation, that light is come into the world; and men loved darkness rather than light, because their deeds were evil.* He reads: *He that believeth not, is condemned already, because he hath not believed in the name of the only-begotten Son of God.*

He that believeth not the Son shall not see life; but the wrath of God abideth on him. He reads; *If any man will do His will*, if any man is in his heart humbly disposed and resolved practically to live as the Divine Law, whatever he may find that Law to be, shall direct: *he shall know of the doctrine whether it be of God**; that man will enquire fully and with a candid and fair mind into the evidences of Christianity, and will be justly satisfied that it comes from Heaven. The guilt of Infidelity is aggravated by the concurrent multiplicity of those evidences: and amidst that concurrent multiplicity, by the testimonies adduced by Natural Theology; testimonies numerous, diversified, continually present, and recommending themselves to consideration by the interesting nature of the objects with which they are generally connected.

It is not, however, the guilt of Infidelity alone which is swelled into a larger extent, and stained with deeper dyes, by the circumstances which have been particularised. By these very circum-

* John, iii. 18, 19. 36. vii. 17.

stances, by the testimonies thus multiform, thus continually present, thus combined with attractive objects, which Natural Theology adduces in confirmation of Christianity, the guilt is swelled of that supine carelessness, that torpid lukewarmness, as to the practical reception and vital exemplification of the momentous truths of the Gospel, by which, in our own and in every Christian country, myriads, who do not deny nor doubt the abstract authority of the Scriptures, are year after year detained on the brink of perdition; nay year after year, if we are to speak that consequence which the Scriptures constrain and command us to forebode, are successively engulphed in its abyss. It is a common remark that in all ancient institutions, civil, religious, or political, undisturbed by concussions, coldness and torpidity insinuate themselves, and in a greater or less degree pervade the mass. The principle of the observation is applicable to ancient verities, however deeply important, the outward profession of which has long been general and secure. Familiarity subtracting the interest of novelty, and tranquillity superseding high sacrifices and strenuous measures of de-

fence, benumb zeal and exertion: and admission of a truth is continually taking the place of obedience to it. In such a state of stagnation, a state tending, while unchecked, to final corruption and dissolution, it is of the mercy of God that, through the course of great and alarming events, He occasionally rouses the world by a moral hurricane. The storm purifies the air, and invigorates those who breathe it. And is it not also of His mercy that, to prevent or to diminish the necessity for such hurricanes, he not only presses upon men through the medium of arguments from history, from prophecy, and from other direct sources, the dispensation of the Gospel; but for the corroboration of faith, surrounds men at every moment with the attestations, external and internal, of Natural Theology? And is not every neglect of the additional mercy an addition to sin? The value of accessions of aid against carelessness and lukewarmness in the concerns of salvation is rarely appreciated at a rate approximating to their worth even by the established christian. *The children of this world are in their generation wiser than the children of light.* From the ardour, the diligence, the perseverance, the wisdom of

men who fix their hearts on earth and its premises, in the pursuit of the power, or the rank, or the wealth, or the pleasure, to which they are severally devoted; the true christian may well derive a lesson, the true christian has too commonly deep cause for deriving a lesson, against the carelessness and the lukewarmness perpetually creeping upon him in his pursuit of a heavenly inheritance. If he thus requires all accessions of aid against these insidious enemies of his soul, how momentous is every accession of aid to the worldly-minded? The earth rings with exertion. But how seldom is the exertion mainly, and habitually, and perseveringly directed to the object which, comparatively, is alone deserving of our efforts and our solicitudes!

That the faith which is acceptable before God must be a faith producing consistent holiness in the heart and in the life, is a truth proclaimed, not only in the pages of Revelation, but by the voice of Natural Theology. God, with reverence we make the statement, proves His holiness by His works; sends us to His works, no less than to His word, that His holiness may be rendered manifest to our conviction; on the authority of

His works demands credit to His word. Shall man then dare to speak of a faith to be trusted without the evidence, the indubitable and the constant evidence, of works? If any man supposes that the very best of his works, a work, if assumed to be perfect, no more than his bounden duty at the time, could do more than justify itself before God; in other words, that it could contribute some particle of atonement towards the expiation of an antecedent transgression; he contradicts the fundamental principle of the Gospel, that atonement is made exclusively by the blood of Christ. If any man supposes that the very best of his works, a work in reality stained with an admixture of sinfulness in the motive, or in the execution, or in both points; a work performed neither with the entire alacrity of heart, and the fervency of grateful love, due to God, nor in a manner corresponding with a completely faithful use of grace, and instruction, and opportunities previously vouchsafed, can justify itself before its Judge; he contradicts the Gospel, and outrages natural reason by claiming for that which is imperfect the acceptance which could be a debt only to perfection. If any man,

therefore, speaks of inherent merit before God as to be found in any human work, ceremonial or moral; as contributing to *purchase* pardon and salvation: if, in short, he looks in any degree, to any quarter, for justification, otherwise than to faith in the atoning blood of Christ, he contradicts the Gospel*. This is the scriptural

* "I will but only make a demand: If God should yield unto us, not as unto Abraham, if fifty, forty, thirty, twenty, yea, or if ten good persons could be found in a city, for their sakes this city should not be destroyed; but, and if he should make us an offer thus large; search all the generations of men, since the fall of our father Adam, find one man, that has done one action, which hath passed from him pure, without any stain or blemish at all: and for that one man's only action neither man nor angel shall feel the torments which are prepared for both. Do you think that this ransom to deliver men and angels could be found to be among the sons of men? The best things which we do have somewhat in them to be pardoned. How then can we do any thing meritorious, or worthy to be rewarded? Wherefore we acknowledge a dutiful necessity of doing well; but the meritorious dignity of doing well we utterly renounce."—Hooker's Sermon on Justification. Eccles. Pol. 8vo. Oxford, 1793. vol. iii. p. 440.

doctrine of justification by faith alone; a doctrine justly characterised by Luther, as the *Articulus stantis vel cadentis ecclesiæ;* the critical test discriminating a standing from a falling church. But is it a doctrine which affirms, or implies, or endures, the position, that good works are unnecessary: that without being zealous of good works, without striving to abound in every good work, without consistent and active and persevering holiness in the heart and in the life, we shall be saved? No position could be more unscriptural; no position more irrational; no position more detestable. Works are the evidences of faith: the fruits which demonstrate the existence of the principle. A barren faith is not faith. Justifying faith is *the faith which worketh by love;* the faith which, animating the heart with love to Christ in return for his unmerited and inexpressible love to man, proves its own reality from day to day by universal earnestness in good works according to his commandments. The man who affirms that he may be justified by any other faith, departs as grossly, as widely, and as radically from the Gospel, as the worshipper of Jupiter, of Thor, or of Brahma,

departs from the living and true God, the sole object of adoration.

The investigations which have been pursued seem forcibly to recommend a settled habit of contemplating the works of God with a devout and a Christian eye: a habit of surveying them, not merely as objects of superficial curiosity, or of scientific research; not merely as teeming with proofs of power, and of benignity, and of exquisite design: but as declaring the holiness, the justice, and the mercy of God; as corresponding, by a train of manifest and accurately adjusted relations, with the condition of fallen beings stationed under a dispensation combining penal and moral discipline with purposes and means of grace; as preparing mankind for the cordial reception of the plan of redemption through Christ, and as attesting the truth of the Gospel. It is thus that, while even the inanimate works of Creation swell into dignity by connecting themselves with eternity, with infinity, with redeeming love; new emotions of the purest delight will be superadded to the contemplation of nature. It is thus that livelier impulses of gratitude and of filial love will be ex-

cited towards our reconciled Father in Christ Jesus. It is thus that faith, continually refreshed and re-vivified, will be more and more fruitful in good works. Practice is the end in which both faith and knowledge are to terminate. *In Jesus Christ* what *availeth, but faith which worketh by love? If ye know these things, happy are ye if ye do them**.

* Gal. v. 6. John, xiii. 17.

THE END.

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